

THE EVALUATION OF AN IN-SERVICE PROJECT
FOR BLACK PRIMARY SCHOOL TEACHERS IN
SOUTH AFRICA IN THE EARLY 1980s

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For my wife Charlotte who made
the impossible - possible

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Comments on the Typing Style

The typing of the present study followed a slightly modified version of the American Psychological Association's (APA) guide from 1981.

For the convenience of the reader the regulations dealing with the headings are reproduced here.

Levels of Headings

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heading ending with a period.

For example,

EXPERIMENT 1: AN INTERVIEW VALIDATION STUDY

External Validation

Method

Subjects

The nonclinical group.

The Author

ABSTRACT

The study deals with the selected aspects of the evaluation of an in-service education project (INSET), which was launched by the private sector in South Africa in 1983, with the purpose of upgrading underqualified teachers in black primary schools. INSET in South Africa lags far behind the rest of the world, particularly so in the black education systems and much of the current INSET activity is unlikely to achieve lasting and meaningful improvements in black schools. Teacher Opportunity Programmes was launched in response to this critical situation.

The target group at which the programme is directed is those 'black' teachers who have had only three years of secondary schooling and two years professional training and who according to state legislation, are underqualified. The primary goal of Teacher Opportunity Programmes is to help put these teachers in a position to obtain matriculation (Standard 10) and thus to qualify them in accordance with state policy. Not only does this raise their status, but it sets them on a career path in education that enables them to enjoy the same salary benefits as the white teachers. A secondary goal is to assist them in their professional development as teachers. The study therefore evaluates how successfully Teacher Opportunity Programmes helps these teachers to upgrade themselves academically and professionally.

Teacher Opportunity Programmes is a non-formal in-service programme which attempts to take into consideration the special problems of the South African situation. As far as possible, the teachers study within their local environments. Certain strategically located secondary schools are selected (primarily because of laboratory facilities) and academic tuition is offered there after school hours. A central feature of the model is that of local teachers working together in an accessible centre, three afternoons a week.

The conceptual framework of the study is based upon theories, models and practices that have emerged in the fields of in-service training and of evaluation. To deal adequately with the object being evaluated, Teacher Opportunity Programmes, an understanding is given of the broader context within which this particular INSET Programme takes place, and its special characteristics.

The general aims of the study are:

1. To attempt to make use of experience and data accumulated during the first eighteen months of the programme.
2. To identify weaknesses and strengths in the programme and the factors contributing to them.
3. To illuminate regional variations.
4. To formulate recommendations.

The study thus attempts to meet the increasing concern over the past few decades about examining the merits of publicly-funded social amelioration programmes of various kinds. Funding agencies insist that programmes should be evaluated, so that the results of the evaluation may be used as a basis for future action and rationalised decision making. The study considers the personal characteristics of the learners and the tutors, and factors such as age, previous education and home and school environments are examined.

The population of the study is spread over thirteen study centres in four geographical regions of South Africa. Six centres are for teachers classified in South Africa as coloured and seven centres are for black teachers. Altogether there are just under a thousand participants. Participation in the programme is voluntary and self motivated.

The instruments for data collection and evaluation were questionnaires, reports, observations and interviews. The data were analysed by standard computer programmes prepared for dealing with data. Since the evaluation was based on data collected from the total population and not from a sample, no tests of significance were employed in the study. The programme provides base line data which help to establish standards by which future activities can be examined. The study identifies four problem areas: Content, organizational setting, delivery and evaluation criteria. It makes recommendations with regard to these, for refining the programme whilst it is in operation, in order to make it more effective, efficient and cost effective.

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Chapter 1: Introduction

The Need for the In-service Education of Teachers (INSET)

Traditionally and historically, teachers have been recognised as agents of educational change, and INSET is now recognised as the best way to help teachers to effect these changes. There have been radical alterations in the fabric of society during the 20th century. New technologies and new social patterns have created the need for new developments in education, in which the in-service education and training of teachers plays an increasingly important part. All over the world there is a great mixture of similarities and differences in the provision of INSET. Through a study of these and the cross-cultural exchange of ideas, example and research, it is to be hoped that qualitative improvement in INSET can be effected in South Africa. There is, therefore, an obligation to attempt to draw from the vast reservoir of intellectual talent represented by the world's education authorities on INSET for a resolution of the crisis that confronts education in this country. Rudduck (1981) indicates that until as recently as the 1960's comparatively little has been written on the practice and provision of INSET. Sandiford (1910) wrote a paper on The Teacher In-Service and Jones (1924) devoted a chapter of his book to The Further Instructions and Training of Teachers In-service. Though writing as long ago as 1924, he made this comment:

Twenty years ago, indeed, there would have been little to note in this connection, but today provision for further instruction and training is being increasingly made and cannot be ignored.

(Jones, 1924, p.182)

Since the 1960's there has been a most significant resurgence of interest and activity in in-service education for teachers in many countries. For example, Johnston (1983), in a survey of teacher education in various parts of the world for the College of Preceptors, indicates that in one district of West Germany an old castle is used as a 'Lehrerfortbildungsheim' (a residential teachers INSET centre), with special arrangements during residential courses. There is a teachers' centre in the Alexanderplatz in East Berlin, possibly the most remarkable in the world. In the U.S.S.R. every teacher must spend one day a week in his fourth year of teaching, and one day a week every fifth year after that, at a Teachers' Refresher Institute, and it is the responsibility of the local town and district soviets to ensure that the provision is adequate. The Swedish authorities negotiated with the teachers' unions to include acceptance of in-service study in every teaching contract. Similar instances of INSET could be given for nearly every country in the world. To take a recent example, the 1984 conference of the International Council for Education for Teaching (ICET) in Bangkok was attended by six hundred educationists from sixty-two countries. The central theme of the conference was that there should be greater provision of INSET to help teachers to develop professionally, to adopt different modes of teaching to help them to come to terms with the rapid changes taking place in society, to keep them from becoming stagnant and undynamic, and to enable them to meet the challenges of the technological age. Globally there has been a more co-ordinated approach to INSET, because educators accept the fact that traditional knowledge, skills and values are constantly being challenged. Bolam stresses the importance of this:

First, it is inherently important that teachers of all people should continue with their personal and professional education. Second, the rapid, extensive and fundamental nature of present day change - technological, economic, cultural, social, political - makes it imperative for the education system in general and teachers in particular, to review and modify teaching methods and curricula ...

(Bolam, 1978, p.11)

Academic and Professional Development

The task of school-teachers is becoming increasingly complex and demanding. It is now accepted that qualifications and training do not alone make a teacher and that an initial course of training is insufficient for a lifetime of professional service in a rapidly-changing world. Other factors such as commitment, vocation, education, personality and enthusiasm are as important as knowledge of the subject material and strategies needed in the daily task of teaching. The 21st century is only fifteen years away. According to Flowers (1983) 75% of teachers in classrooms today will still be teaching in the 21st century, and children born today will be leaving school in the year 2000. Flowers stresses the importance of the academic and professional development of teachers and the inadequacy of an initial course of training for a lifetime's professional service of up to forty years, by citing the story of Rip van Winkle, the legendary character who fell asleep one day and awoke twenty years later in a land vastly altered during his absence.

If, like Rip van Winkle, we were to take an imaginary leap into the future, what would we discover upon awakening? Will the global problems of poverty, hunger, disease and illiteracy be resolved? Will age, race and sex no longer be barriers to achievement and advancement? How will our educational institutions have changed? Who will be the teachers and what will they teach?

(Flowers, 1983, p.1)

Flowers suggests that educators have a choice about the future. The teaching profession can, like Rip van Winkle, take a fifteen-year nap until the future happens, or that future can be decided through the provision of suitable courses of INSET now. The recent White Paper issued by the British government titled Teaching Quality (H.M.S.O. 1983.) which was produced by the Department of Education and Science, confirms this need for teachers to have both a deep knowledge of the subject that they teach and also the professional skills needed to impart it to children of different abilities, aptitudes and ages. The paper also emphasizes the need for skills necessary to the performance of their function outside the classroom, both in the social life of the school and

in relations with parents and the wider community. This extract from the paper indicates the need for adequate academic and professional development of teachers through INSET:

Qualifications and training alone do not make a teacher.....all teachers need from time to time to avail themselves of in-service training

(H.M.S.O.1983, p.91)

INSET in Other Countries

The need for the in-service education of teachers has become a topic of great interest to educationists in most countries now, because all have recognized its significance and the need for it. This is supported by the great and ever-expanding body of knowledge about INSET, most of which is peculiar to the needs of each individual country and situation. Providers of INSET in other countries can, however, glean ideas from them. Lauwerys pointed out the importance of this international perspective as follows:

It is the great glory of our profession that it is world-wide. There is much in common between educators in Japan and in America, in China and in Europe, in India and in Africa, in the Soviet Union and in Britain. We can learn much from one another because we are all trying sincerely to do the same kind of job and because we all believe that through education the world of the future can be made better than the world of today.

(Lauwerys, 1971, p.3)

Masoner is more cautious, and warns us against the dangers of the direct duplication and replication of INSET programmes of other countries:

There is no one model programme, nor should any nation attempt to duplicate exactly any programme in existence, regardless of its demonstrated success.

(Masoner, 1983, p.124)

A survey of the extensive literature available on INSET shows that in almost every country a new view of national development is replacing that which traditionally concentrated upon economic production. The new concept includes all aspects of the social, political and cultural

development of the individual. Development in South Africa, for example, is now perceived as directed towards the problems of poverty and deprivation, social equality, quality of the environment, participation in the political process, population explosion, urbanization, and the general improvement of the quality of life. Since teachers have a very important role to play in this, such a conception has particular relevance for providers of INSET in the complex South African situation. A world perspective on INSET is therefore necessary, even though it will be readily accepted that different countries have different societies and therefore different education systems. Although the rationale for the provision of INSET in these countries will differ greatly, the concept that the teacher is an agent of change and should be in a continual state of development is common to all. This continual development is effected through INSET. In a profession in which the dangers of professional stagnation are great, teachers can experience a rejuvenation of enthusiasm, receive refreshment and stimulation and improve their competence to carry out the immediate tasks that face them in school.

Some countries provide more sophisticated and more highly developed INSET than others, but the pressures for more and better in-service teacher education are similar throughout the world. Any proposals for the introduction and development of INSET in South Africa, therefore, should be seen against very well established patterns in these countries. For example, the O.E.C.D. report (1980) on INSET in France, England and the USA says that in spite of their heterogeneity, these countries show a remarkable degree of similarity in organization, method and content, and an emphasis on short school-based courses.

Though INSET in other countries will differ in very significant ways, both from each other and from INSET in South Africa, all are faced with the same fundamental problems: the provision of suitable effective and cost-effective INSET courses that ensure the continuing education of teachers, whether underqualified, unqualified, or qualified.

Definitions of INSET

INSET has been variously defined. There are as many definitions as there are INSET programmes. There are as many similarities and differences between the various definitions as there are between the education systems. This section will offer some widely-accepted definitions of INSET and attempt to point out the similarities, and differences and their significance.

One commonly-accepted definition of INSET is that it embraces all those experiences that a teacher may undergo for the purpose of expanding his professional and personal education. Dunkley considers this an excessively broad view and therefore a cause of confusion. He gives a narrower definition of INSET: "all those planned activities teachers undertake to improve their instructional effectiveness, personal and professional knowledge and skills to equip them for new or changed roles (Dunkley 1984, p.2).

This implies that INSET activities must be planned so that change or innovation can be brought about. The teachers are guided and equipped for the challenges and developments of the dynamic and changing societies referred to in the Introduction. There is, however, no focus in Dunkley's definition on the ultimate purpose that lies beyond all provision of INSET which is to improve the quality of the learning of the pupils. It might be argued that this is implied though it is not stated.

Van den Berg argues against this when he says: "The fundamental rationale for INSET is not related to teacher quality per se but to its role as a major strategy in attempts to maintain and improve the quality of schooling" (Van den Berg, 1983, p.2).

He is supported in this view by Klassen who says that in-service teacher education should prepare teachers and other educational personnel to be of the highest possible quality; but in the last analysis the children are the aim:

To protect children from the ignorance of their teachers is to state the objective in its most negative terms. More positively, to provide teachers capable of stimulating the younger generation.

(Klassen, 1983, p.35)

Few writers on the subject stress the importance of the involvement of the whole school, including the principal, in INSET activities. Bolam (1981) stresses this, however, not only does he stress the importance of all being concerned in the INSET activities after professional certification, he also specifies that the ultimate purpose of INSET should be to improve the quality and learning of the pupils through the increased knowledge and improved professional skills and attitudes of the teachers.

Adams stresses the importance of teachers' understanding of the principles and methods of education and gives a rather broader canvas for INSET, though there is no reference to the planning of activities. INSET is defined by Adams as "the development of the individual from the whole range of events and activities by which serving teachers can extend their personal, academic or practical education, their professional competence and their understanding of education principles and methods" (Adams 1975, p.37).

Adams's definition is supported by the definition of INSET given by the British Department of Education and Science (1983) which suggests that any activity that a teacher undertakes after he has begun his teaching career, and which is directly concerned with professional work, can be regarded as INSET, since attitudes, skills and knowledge are considered by the D.E.S. to be the most significant factors determining the quality of education. It also refers to the importance of educational principles and techniques. INSET is described as "the whole range of activities by which teachers can extend their personal education, develop their professional competence and improve their understanding of educational principles and techniques" (H.M.S.O., 1983, p.34).

This would seem to imply that every aspect of a teacher's knowledge and skills, and even his personality and range of interests, are of potential professional value, and therefore any activity undertaken might be

interpreted as in-service education. There is no indication of planning or any focus on the recipients of the educational dispensation - the pupils. The focus is on the teachers. Both definitions would be rejected by Dunkley (1984) on the grounds that they are vague and nebulous.

It seems difficult then, if not impossible, to give a single definition of INSET that would satisfy all needs and embrace all aspects. It is clear that all definitions must clearly relate to improving the competence, knowledge and professional skills of teachers; but there are other factors to be considered, such as the teachers' individual and personal needs and aspirations at different stages of their careers, which may be strong motivating factors for participation in INSET courses. Rather than leave it to the planners to decide what they think the teachers need, and then provide INSET courses for them, there is perhaps a case for carrying out a needs assessment among the teachers and then to define what kind of INSET is required accordingly. An example of such a procedure is that by Keast (1984), who carried out a survey among five hundred teachers in England in an attempt to assess their needs.

He then formulated four separate definitions of INSET, according to the needs as they were expressed by the teachers. These are more definite than the definitions, that we have given because they focus on important factors such as job satisfaction, reward and promotion, which the others do not mention and which are naturally matters of great importance to all teachers.

Keast therefore takes into consideration the professionalism of teachers and the importance of providing opportunities for them to exercise some autonomy in articulating their professional needs. This indicates that teachers should be helped to analyse their professional needs, knowledge and skills and that this should be the starting point.

The four categories of INSET offered by Keast are:

- a) School-based in-service: to help teachers to improve the quality of education in their school;
- b) Job-related in-service: to help teachers to be more effective in their own post; and to derive job satisfaction
- c) Career-orientated in-service: to prepare teachers for promotion;
- d) Qualification-orientated in-service: to provide teachers with further qualifications.

(Keast, 1984, p.4)

The apparent weakness in most INSET provision, judged by the definitions that describe them, is that few contain, even in part, what teachers want from participation in such activities. Rosewell makes this point very clear:

Everybody knows what teachers need, but only teachers themselves know what teachers want. Any successful form of INSET must in these circumstances be a judicious mixture of what teachers want and what those who provide the courses think they need.

(Rosewell, 1983, p.45)

The significance of all the different definitions of INSET is that every country, or even a region within a country, develops strategies of INSET to embrace the particular needs of the teachers as they perceive them to be. They all attempt to formulate a comprehensive programme of professional development, but as Henderson points out, almost every country has grasped the significance of in-service training, but has failed to formulate a coherent in-service training policy, preferring rather to encourage ad hoc developments (Henderson, 1978, p.21)."

In spite of this it is realized everywhere that INSET in all its forms is a crucially important element in raising the quality of education and maintaining an effective and adequate corps of teachers, as well as satisfying the needs of individual teachers. Morant suggests that:

It is probably easier to say when in-service education should occur than to give an immediate definition. It is the education intended to support and assist the professional development that the teachers ought to experience throughout their working lives. Its the starting point thus should be marked when the newly qualified entrant to the

teaching profession takes up his first appointment in school. Its finishing point coincides with retirement. That suggests that in-service education in one form or another could be experienced by a teacher for a span of forty years.

(Morant, 1981, p.1)

In Japan, according to Haruo Nishinosono of the Kyoto University of Education, the recent increase in INSET courses reflects the growing interest of in-service teachers in the improvement of their professional competence. He reports:

Three new universities (Hyoto, Jou-etsu and Noruto) have been established in the last five years and are mainly aimed at providing in-service teachers with the opportunity of refreshing and improving their professional abilities.

(Haruo Nishinosono, 1984, p.2)

Dr Giuseppina Rubagotti of the Italian Ministry of Education, in her paper, The Initial and In-Service Training of Nursery School Teachers states that "in-service training is a fundamental aspect of the teachers' profession, and it is both a right and a duty which stress personal participation.....it will stimulate the teachers' personal, cultural and didactic capacities.....emphasising new methodolgies" (Rubagotti, 1984 p.3).

Dr G.A. Allana, Chancellor of the Open Univesity in Islamabad in Pakistan, describes INSET in Pakistan as follows:

A person joining the education service as a teacher means his entering the world of continued self-education. A good teacher, for example, on his report is an organizer of learning and consciously and incessantly keeps improving his knowledge of the subject he teaches....and of course he learns how best he can teach and utilize the instructional facilities available to him.

(Allana, 1984, p.1)

The Aims of INSET

It will be readily accepted that there must be a correlation between the definitions of INSET and its particular objectives. Many of the aims of INSET are also interrelated. A computer search conducted by the E.R.I.C. Clearing House in 1984 indicated that there are thousands of reports and dissertations on INSET strategies and model emanating from many countries, which cover the whole range of in-service education and training of teachers. Each of these has its own particular focus and is designed to embrace particular needs, and each therefore has its own particular definition of INSET. Such a vast reservoir of information implies that a researcher must be selective and must focus on those definitions and objectives that are readily transferable or applicable to his particular area of enquiry.

An analysis of the foregoing selective definitions of INSET reveals that there are general main aims of INSET put forward by the most important writers on the subject. Although the list is by no means exhaustive, they have been selected because they are comprehended in the aims of Teacher Opportunity Programmes which is the subject of this study and which is fully discussed in Chapter 3. It is proposed here to discuss these general objectives under sub-headings and to refer to the main writers.

1. The integration of experience with theory.
2. Fulfilling legal requirements.
3. Provision for upward mobility.
4. Supplying teachers for the systems.
5. Combating 'burn-out' of teachers.
6. Adjustment to changing conditions.

The Integration of Experience with
Theoretical Studies

Carr (1980) points out that there is inevitably a gap between theory and practice at both initial and in-service levels. At the initial training level there is a tendency to regard college work and school practice as separate parts of a course of training, and at the in-service level teachers are often left bewildered by the vast amount of reading, much of it indigestible, that is required of them. It is interesting to note Klassen's conclusions that globally in teacher education, 60%-80% of a teachers' preparation occurs in the academic disciplines, the remainder in professional courses and experiences (Klassen, 1983, p.36).

This emphasizes the necessity of integrating experience and theoretical studies in INSET courses. Wasp observes that teachers have difficulty in combining classroom experience with educational theory. He asks the question: "How can this gap between theory and practice be bridged and how can teachers be encouraged to construct their own cognitive maps to make theoretical sense of adverse classroom practice?" (Wasp, 1983, p.66).

One purpose of INSET, therefore, must be to answer this question, and providers must build material into in-service courses that is theoretically rigorous and yet practically applicable. If the aim to improve teachers' understanding of educational theory by integrating it with experience is to have relevance in any strategy of INSET, teachers must be made aware of current educational theories, and these must be combined with practice. Joyce and Showers (1981) consider this integration and transfer of training and propose a unique model that entails what they refer to as 'on site coaching' of teachers, to enable them to transfer skills to each other through theory, observation and practice. Clearly, a great deal can be done throughout the careers of teachers, through general staffroom discussion and the sharing of experiences through such practices as "shadowing" (see Crabtree 1980) in which young teachers observe experienced colleagues at work. The advice of senior members of staff, such as heads of departments, deputy heads,

principals and other as experienced teachers can provide very fine leadership to ensure that teachers keep abreast of developments in their teaching subjects, in teaching methods and in the important tasks of school administration and classroom management.

Farnsworth (1981) in his research into the preferred methods of professional development among principals and teachers, supported previous research in the field and postulated twenty-four possible methods of combining theory with practice. 'Workshops' in schools were given high priority in the list.

Other highly rated methods were observation of other teachers, classroom demonstrations, participation in curriculum developments, and personal analysis of video-tapes. In such endeavours the leadership of head teachers seems crucially important, because, as Louw pointed out:

In-school in-service education and training has a vital role to play in maintaining the efficiency of teachers, allowing for discussion on the links between theory and practice and for the introduction of cautious and well tried innovations.

(Louw, 1984, p.4)

It is clear that teachers can set a constant example of good or bad professional practice to each other, not only in method of teaching subjects and teaching techniques, but also in the wider professional areas of discipline, counselling, class control and forward planning. Fey (1980) found that the use of closed-circuit television in school-based INSET courses was an excellent aid in bridging the gap between theory and practice. Such innovations require courage and self-confidence; but Fey found that, once accepted, it was an excellent method of exploring and discussing educational theory and teaching techniques.

The O.E.C.D. (1980) report on in-service education in France, England and the U.S.A. indicates that in these countries there are firm proposals to involve 'teacher trainers' in school work, and, vice versa, to use school teachers in teacher education. Such evidence seems to reinforce the argument that INSET courses must be structured in ways that draw upon the existing experience and practice of teachers in schools to attain the

objective of combining experience with theoretical studies. Wragg (1984) edited an important piece of research in this field. The project, which took place over a period of five years, entailed observation of over a thousand lessons and interviews with more than two hundred experienced and novice teachers. It attempted to answer questions about the combination of theory and experience, precisely what classroom skills trainee teachers needed, and how performance could be analysed, so that areas for improvement could be identified. It recommended that INSET should seek strategies to combine relevant theory with practice.

In many parts of the world, but particularly in America, there has been considerable research and attempts made through INSET to attain this important objective. One of these is Mohlman's (1982) research on Assessing the Impact of Three In-service Teacher Training Models which examines current thinking on the effectiveness of in-service training, and identifies a major component of in-service training, as the presentation of theory combined with practice in simulated or classroom settings.

Induction courses as an example of integration
of theory with experience.

In some countries notably England, successful completion of a probationary year is required before teachers receive full recognition as qualified teachers. Over and above this, heads solicit the advice of senior members of staff and promote staffroom discussion and guidance for new entrants to the profession. In that way probationary teachers can keep abreast of developments in their subjects, teaching methods and general school administration. The situation in the U.K., for example, is that

the Government adheres to the view expressed in Education: a Framework for Expansion that there is no major profession to which a new entrant, however thorough his initial training, can be expected immediately to make a full contribution. Teachers in their first teaching posts need, and should be released part time to profit from, a systematic programme of professional initiation and guidance, and further study where necessary.

(H.M.S.O., 1983, p.26)

Many enlightened principals who feel strongly that their professional duty is continually to upgrade their staffs both academically and professionally develop such strategies into school-based in-service courses, the content of which is decided by consensus of staff opinion for the general benefit of all. These induction courses are run primarily but not exclusively for new and inexperienced staff. A senior member of staff is usually appointed to oversee and guide the teachers in their first year of teaching. He takes responsibility for their development and understanding of what is expected of them in professional development, teaching methods and school administration and he offers regular sessions of advice and help. The main idea in the induction programme is not to change the new teachers from what they are but to add to what is already there. The primary objective is to introduce them to their chosen profession and to prepare them more fully to meet its challenges in the first year and throughout their professional lives. Such induction lays the foundation for all future development.

The Department of Education and Science (U.K.) describes such courses as follows:

Induction may usefully be seen as the first part of the continuous process of professional development of staff in a school....some schools have set up representative committees to plan induction and in-service programmes. A consideration of how to meet the training needs of new entrants leads naturally to a consideration of teachers beyond their first year. This can be particularly beneficial in awakening or stimulating teachers' interest in the concept of professional development.

(H.M.S.O., 1978, b.p.8)

Such activities are a practical guide, designed to smooth the path of new entrants into the profession, so that this early experience can be used as a firm secure foundation on which to base their teaching careers.

The Enfield In-service Induction Scheme of 1978 is a particularly interesting and very successful example of induction in the U.K. The scheme was for new entrants to the profession, who by law were required to pass a probationary year before they received full certification. In 1978, 212 teachers were involved. To allow for in-service courses to be run, the principals of these schools were asked to ensure that the

teachers concerned should be excused ordinary duties for about half a day a week. They were also asked to allocate a senior, well qualified and experienced teacher as a tutor to the new staff and to take responsibility for their welfare. They were to be allocated time on the timetable to carry out these duties. Such tutorship, was found to be a very crucial appointment.

Dell (1983) carried out an evaluation of this project and indicated that the calibre of the person chosen influenced the success or failure of the scheme to a very great extent. He also came to the conclusion that the main value of the project lay in the support if offered to newly-qualified or underqualified teachers to combine theory with practice, through the provision of learning experiences and professional support at the appropriate time.

Legal Requirements

A stated objective of INSET is that of raising the standards of the teaching profession with regard to the legal requirements and certification. As will be shown in Chapters 2 and 3, South Africa is no exception to this, because recent legislation on the basic acceptable qualification has made 80% of the black teaching force under-qualified. Most "third-world" countries labour under the difficulty of having to use teachers who are unqualified or underqualified. Attempts are being made everywhere to upgrade teachers and offer them the opportunity through INSET programmes to become legally qualified in accordance with government legislation.

Legal requirements in developing countries.

Dunkley (1984) identifies the raising of qualifications to a minimum legal standard as one of the main objectives of INSET in backward countries. He proposes that this should be done through upgrading the competence of the teachers and by improving their qualifications.

The courses range from those for the induction of teachers into their first posts, as described in the previous section, to the provision of programmes offering the opportunity to under-qualified teachers to raise their qualifications to the required legal standards by means of part-time attendance at colleges and institutions.

In the "third world" context, such strategies for INSET have become attractive to policy makers and educational planners because they offer a means of solving the problems of poorly qualified, under-qualified and unqualified teachers and raising them to an acceptable level of competence without removing them from the classroom. The development of education in each country has been different, and the availability of legally qualified teachers and the numbers of those with poor academic and professional qualifications also differ because each country has fixed, but quite different, levels of academic qualifications and periods of training required to attain the legal status of a qualified teacher.

An example of legal requirements through INSET was the Asian Programme of Educational Innovation for Development (1982) which ran a Joint Innovative Project on In-service Primary Teacher Education in eight countries : Bangladesh, India, Indonesia, Malaysia, Nepal, the Philippines, South Korea and Thailand. Each of these countries had undertaken, during 1980-1981, to conduct a national study of its own INSET programmes for the in-service upgrading of its under-qualified primary school teachers. An examination of the national reports not only shows a considerable degree of similarity of INSET provision across the different countries, but also a number of special features that are unique to each of them. The development of primary education in the participating countries is varied, because in some countries primary education has been more or less universal, while in others the participation of primary age children has remained at a low level. A careful perusal of the reports, however, shows that while there clearly are variations in the development of INSET between these countries, all have the same problem and objective of raising the standard of the under-qualified teaching force to an acceptable legal level of competence. It also points out that primary-school teachers in these countries differ widely in academic and professional qualifications. The

proportion of trained teachers varies from about 35 per cent to nearly a hundred per cent. Moreover, each country has fixed, but often quite different, legal requirements concerning the academic qualifications and period of training necessary to become a teacher at the primary level. However, despite this heterogeneity, the organization, purposes and content of their in-service primary teacher upgrading programmes, the research concludes that:

In-service education programmes developed concern among teachers to develop professionally and academically, and positively influenced the behaviour and teaching/learning styles of the participants. In-service education contributed to the upgrading of professional qualifications and helped refresh the spirit and morale of teachers.
(APEID, 1982, p.4)

Legal requirement in developed countries:

England and America as Examples.

In England, there is no legal compulsion for teachers to follow INSET courses. The government, through the local education authorities, puts on in-service courses, which are non award-bearing, because it recognizes that INSET of this kind has a vital part to play in maintaining the efficiency of teachers. In sharp contrast to other countries, the British government, while stressing the need for INSET courses, hesitates to make it compulsory. While he agrees with the policy that INSET courses should operate on a purely voluntary basis, Lindop expresses the opinion that "it is surprising, in the absence of substantial financial incentives, that so many teachers choose to undertake in-service training" (Lindop, 1983, p.1).

Teachers in the United Kingdom are, however, required by law to complete a compulsory probationary year. This is considered by all concerned to be a very crucial time. In the first year of service, the young teachers need support and advice to become effective teachers. The probationary year is taken very seriously, and there is no choice in the matter. Satisfactory completion of it is necessary before final qualification and certification are granted.

In many states of America, to be granted a permanent certificate to teach, even teachers who have successfully completed a course of training are required to take in-service courses during their first years of service.

McClellan(1983) indicated that the legal status of teachers in the U.S.A. their certification and employment, were incentives for attendance at INSET courses. Before 1960 teachers at the elementary level were either unqualified or under-qualified, because they had only a two-year sub-degree training. In 1960, when the various states began to insist on a university degree as the minimum legal qualification, many teachers used in-service education as a means of acquiring their degree. By the early 1960's nearly all new teachers at elementary schools had taken four-year university degree courses in education. Even then, some states insisted on a fifth year of study before awarding qualified status, on the grounds that because a normal first degree course lasted four years, students who had taken education and teacher training courses needed to study further to reach the same academic level as non-education graduates. By the 1970's many states required their high-school teachers to possess a master's degree. Until the 1970's, before reciprocal recognition of teaching certificates began to take effect, teachers who moved from one state to another were at a serious disadvantage, since each of the states had complete autonomy in teacher certification.

Teachers who moved were often required to take extra courses before being recognized by the state to which they had moved, and these requirements led to the provision of in-service courses for teachers so that they could qualify themselves to the standards set.

According to Martin McClellan (1983) the most persuasive and significant factor that gave an incentive to teachers to do in-service training in the U.S.A. was the provisional qualification system. In most American states new teachers were recognized for a limited period only, three, four, seven or ten years. To obtain a so called permanent or tenured post at the end of this probationary period of service, teachers had to have taken certain in-service courses and to have satisfied other conditions.

Whether in developing or developed countries, then, obtaining the legal requirement of certification is considered to be an important purpose of INSET.

Provision for Upward Mobility: Promotion

Research seems to indicate that upward mobility and promotion are important objectives of INSET. The best example is perhaps the United Nations survey (1982) carried out among the member countries of the Asian Programme for Educational Innovation and Development, which discovered that "the practice of linking in-service education with further formal qualifications proved popular with many teachers, particularly among those who were seeking upward mobility" (APEID, 1982, p.4).

In the Western industrial world in recent years there have been pressures to provide common comprehensive schooling for all, especially at the secondary level. The attainment of this ideal is destroyed by entrenched differences in the status of teachers, their salaries and qualifications. This is a 'carry-over' effect from the systems of differentiated schooling. Examples of this can be seen in England, where the Secondary Modern and Secondary Central Schools were combined with the Grammar Schools to form the comprehensive schools, and in Germany where the Volksschule was combined with the Gymnasium to form the Gesamtschule. INSET became a means of obtaining better status, salary, promotion and upward mobility in the schools in those countries.

In South Africa, the recent government legislation on the basic acceptable qualification has meant that teachers must take INSET courses to gain promotion from one grade to another and therefore a rise in status and salary. (See Chapter 3). Two of the fifteen factors identified by Hite (1977) in his paper on the Perception, Purposes and Practices of In-service Education which he delivered to the American Association of Colleges for Teacher Education, were intrinsic or extrinsic rewards or incentives and upward mobility within the profession. He also ascertained that because in-service credits are geared to salary increments in the U.S.A., teachers have to go beyond

their local resources to develop their career. Joyce (1976) and Yarger (1976) both suggest career progression as a point of departure for teachers to become actively interested in INSET. Howey (1977) in an article discussing the alternative benefits of taking part in INSET, gives an important place to career development as an aim. He comments on the fact that there is little opportunity for outstanding teachers to remain in a role working primarily with pupils and yet to move up in some career hierarchy bestowing higher status and increased competence over the years. In support of this he says:

The very substantial numbers of non-teaching educational personnel in "support" positions....provide ample testimony that teachers very much have career aspirations like most everyone else.

(Howey, 1977, p.45)

Howey (1977) suggests further that IN-SERVICE should perhaps be called OUT-SERVICE because of the way in which it affects promotion and upward mobility and the effect it has on removing teachers from the classroom, when it would seem to be a much more useful activity if it were related to the opportunity to assume more sophisticated, responsible and financially rewarding instructional roles while remaining in the schools.

McClellan(1983) indicates the state of the arts with regard to INSET and the fact that upward mobility in America is closely connected to the aim of INSET for legal requirement purposes. For example, it is expected of all serving teachers in the U.S.A. that they should continue their professional growth and development by following courses while in service. Throughout this century teachers in America have been under pressure to take in-service courses systematically, particularly during the early part of their careers. The suggested educational philosophy behind this was that the vocation of teaching was concerned with much more than the transmission of that particular knowledge which the teachers already knew and the pupils did not yet know. In-service education for teachers has therefore been widely available and strongly supported over a long period in America, which probably accounts for the wide body of research emanating from it. Means have been found to encourage teachers to take these courses. For example, the policy of hire-and-fire in the U.S.A puts the teacher in a precarious position

unless he has a permanent appointment. Attendance at INSET courses is not only a legal professional requirement therefore; teachers must attend the INSET if they wish to qualify for salary increases and maintain their professional status.

The result of such legislation means, of course, that the teaching profession in the U.S.A. is not the secure job for life that it is in many other countries. Such conditions of service as the hire-and-fire policy in most states is an important factor in encouraging teachers to take INSET courses to extend their training. Hire-and-fire policies also imply that teachers cannot expect to settle in one teaching post for their whole career. However, once a teacher has a permanent full-time post, all his increases and increments in salary are based on seniority and qualifications rather than on the responsibility of the post that he holds. The danger here, it might be argued, is that attendance at in-service courses becomes a mercenary pursuit of salary increments rather than a desire to improve qualifications and gain promotion and professional competence. Hite (1977) establishes that INSET has therefore been extensively used by teachers in the U.S.A., particularly in the first ten years of their career.

Thompson also stresses the importance of the individual or personal needs of teachers in the provision of INSET. He states that "INSET further includes the means whereby a teacher's personal needs and aspirations may be met as well as those of the system in which he or she serves" (Thompson, 1982, p.4).

Bolam (1982) suggests that a primary aim of INSET should be to help teachers to advance their careers, and he quotes the British Advisory Committee on the Supply and Training of Teachers in support of this. Keast (1984), in his research into the opinions of five hundred teachers in the south-west of England, conducted through the University of Exeter, identified an important need as being "career-orientated in-service: to prepare teachers for promotion."

Gardner, in an article titled The Unfinished Business a series of lectures, responses and seminars to mark the fiftieth anniversary of the British Department of Education in developing countries, discusses the connection between upward mobility within the profession and the provision of INSET. He says that the most essential quality that INSET must have is that it should be seen by the teacher to be necessary to him personally:

If credits for in-service courses are needed at certain points throughout the teacher's career and if without these credits the teacher is debarred from moving up his salary scale or is debarred from promotion to more senior positions, a powerful incentive is added for the teacher. A simple and perhaps acceptable technique would be to ensure that only those who have attended in-service courses are promoted. Such a policy would soon be noted by teachers and those who were ambitious would undoubtedly respond.

(Gardner, 1979, p.180)

The danger inherent in this, however, seems to be that it would perhaps be only the ambitious who were promoted, when it is the whole of the teaching body who should keep up to date. The alternative is that in-service training should be compulsory for all teachers but, according to Gardner (1979), if it is necessary to force teachers to attend INSET courses, then it is a sad reflection on their motivation and professional commitment. The fact remains, however, that teachers like to know that they are doing a better job; but they want this to be manifested in a tangible form, such as promotion, upward mobility and financial recognition.

Writing on INSET in South Africa, Van den Berg suggests that in the last analysis everything comes back to the teachers, whether there is any legal compulsion on them to attend courses or whether the incentive is mobility through the profession or some other incentive. He suggests that those concerned with the provision of INSET must recognize that the total involvement of the teachers, their motivation and commitment, are essential if any lasting benefits are to be derived. He even goes so far as to suggest that national plans do not work: "If teachers are neither willing nor able to implement national proposals, effective reform is not possible" (Van den Berg, 1983, p.35).

Supplying Teachers for the System: Developing Countries

The term 'developing' is applied to countries where, generally speaking, population increase is rapid, natural resources are few or unexploited, administrative structures are weak, and technical aid is vital. Because of the explosion of primary enrolments, a number of developing countries, particularly in Africa, employ a high proportion of untrained and unqualified teachers.

As was stated earlier, almost every country has recognized the need for INSET, whether for offering opportunities to qualified teachers to keep up to date, to improve their skills and professional knowledge, or to upgrade in-service teachers who are unqualified or under-qualified. It is agreed by the most important writers on the subject that everywhere in this field of education there is a malaise and a crisis. For example, Klassen (1971), Lauwerys (1971), Kelly (1971), and Murray (1971) in report of a teacher-education conference in the West Indies on the theme, of Crisis and Change in Education, all agree that a real crisis exists, particularly in 'third-world' countries. There is consensus that in Africa (including South Africa, which is both a third-world and a first-world country) and many countries in South America and Asia, the supplying of teachers for the systems could be effected by means of INSET. Planners in developing countries have realized that INSET is the best means of solving the problem of poorly-qualified teachers in countries where the population is exploding and attempts are being made globally to eradicate illiteracy and to offer every citizen a basic education. Kelly (1971) suggests that in industrialized countries where citizens express dissatisfaction with the end-product of schools and colleges, and complain that urgent social problems are being neglected and that many of the objectives being pursued in education are out of date and thus make much of what is being taught irrelevant, should use INSET as a means to combat this malaise. The developing third-world countries, on the other hand, see INSET as a means of coping with the population explosion and the unprecedented expansion of education, and of providing qualified teachers for the systems.

A survey of the literature indicates that in many countries there seems to be a move towards placing less emphasis on long pre-service training and concentration instead on developing and providing more in-service training. This theme was discussed by Gardner (1979) and a panel of prominent educationists at the London University Institute of Education on Teacher Education in Developing Countries.

The panel consisting of such well-known British educationists as Blaung, Dore, Honeybone and Holmes, came to the conclusion that in developing countries the standard pattern of teacher-training, based on an initial pre-service full-time course of two to three years with little or no in-service training, was no longer the norm, and increasing emphasis was being placed on providing teachers for the systems through in-service training. They concluded that long courses of training were questionable in expense, and doubted whether in fact they were necessary at all. The question of whether teacher education was worth the money spent on it was also discussed, since every country spends a high proportion of its education budget on teacher education and most of the money goes on full-time pre-service courses in training colleges. The consensus indicated that more time, money and resources should be given to INSET and less to pre-service courses.

Husen (1979)' a. of the University of Stockholm carried out a survey among thirty-two developing countries, and in his research Patterns and Structures for Teacher Education came to the conclusion that formal education was now in a process of development all over the third world.

He raised the pertinent question whether the formal education system that developed in Europe and North America and was exported wholesale was adequate for the needs of developing countries. According to Husen, it was transferred during the colonial period without essential modifications, and it was taken for granted that it would be suitable for societies of quite different economic, cultural and social structures. He concluded that it was no wonder that these countries were beset with problems of relevancy and a lack of competent teachers.

In several Latin American countries, notably Brazil, Peru, Chile and Venezuela, INSET and teacher preparation has been the subject of intense debate and widespread activity in recent years. Its importance is recognized in relation to the total process of development. Teixeira indicated that in these countries educationists "were in agreement most firmly on one goal, namely, the pervasive need to co-ordinate and integrate educational planning and development, especially with respect to teacher training" (Teixeira, 1971, p.21).

Soto, writing on the reforms that have taken place in Chile since 1965, said that from the outset it was considered indispensable that every teacher should be given the opportunity for systematic upgrading through INSET. Between 1965 and 1971 ninety thousand school teachers were upgraded in Chile. This gave a remarkable average of some fifteen thousand annually. The goal of this strategy of INSET was to get rid of rote-learning and "to give teachers a rational pedagogical philosophy which will include a clear definition of the function of the teacher as the guide of the process of change and the function of the students as active and creative participants in the process of learning" (Soto, 1971, p.28).

Venezuela is another Latin American country that since 1958 has been undertaking vast educational reforms designed to make the system satisfy the demands of economic and social development, particularly in training and upgrading of teachers. Domínguez, Director of education at the Ministry in Venezuela, indicated that between 1953 and 1962 enrolment jumped by 67% in the primary schools. This enormous expansion in enrolment called for an extraordinary response from the education system for the preparation and upgrading of the qualifications of teachers through an aggressive programme of professional improvement that would provide sufficient teachers for the system, since the colleges simply could not satisfy the demands of such an enormous expansion. Domínguez indicated that:

as a result, a large number of persons were incorporated into the educational system without pedagogical training. In 1959, of the thirty-one thousand teachers in Venezuela at the elementary level, more than half, 17,442, had not obtained the teaching certificate.

(Domínguez, 1971, p.32)

The provision of INSET and the problem of providing adequately qualified teachers is the same for all the developing countries on the African continent. An interesting and valuable research project in this field was Greenland's INSET Africa Project, which was a survey of the In-service Education and Training of Primary School Teachers in English-Speaking Africa. All together thirteen countries took part: Botswana, Zambia, Ghana, Kenya, Lesotho, Liberia, Malawi, Nigeria, Sierra Leone, Swaziland, Uganda and Zimbabwe. The purpose of this vast project was to gather information:

particularly the detailed description of individual INSET strategies which could be made available to policy-makers and agencies responsible for INSET, and thus enable them to review their current priorities and to modify their own INSET programmes.

(Greenland, 1983, p.5).

There were seventeen case-studies of individual INSET strategies though not all were expressly designed to upgrade under-qualified teachers. A brief survey will be given here. All countries had distinct characteristics, modalities and content. For example the Zimbabwe teacher-upgrading programme was full-time and lasted a complete academic year. In Uganda, the course was even longer, two years, the teachers spending one term a year at college. When they were back at school they were required to carry out assignments.

Labor indicates that in some African countries the proportion of unqualified teachers is such that "emergency" short courses are needed as a supplement to full-length training. He quotes Sierra Leone as an example:

A critical problem confronting the primary school system in Sierra Leone is the predominance of untrained and unqualified teachers. The proportion of untrained, unqualified teachers actually on the job in primary school classes throughout Sierra Leone has been estimated at 60% for the 1977/78 academic year. Meanwhile, the output of trained teachers from the five colleges is only 450 per year.

(Labor, 1983, p.301)

In many ways INSET for teachers in Asia is more advanced and more highly organized than in Africa and other parts of the world. An enormous programme called the Asian Programme for Education Innovation and

Development, sponsored by UNESCO (referred to earlier) is in operation. This organization calls frequent meetings of all twenty-three member countries, which all have similar problems caused by population explosion, to prepare strategies for INSET programmes for primary school teachers in their countries and to report back on developments. The objectives are to help those countries that have current INSET programmes to evaluate refine and develop them and to help those countries that have no INSET programmes to design, develop and carry out programmes of in-service education for primary teachers. A further important objective is to create strong research links among educational researchers in the participating countries, to give them increased confidence and root reforms in in-service primary teacher education on research studies in the area. In this way some assurance is given that adequately qualified teachers are supplied to the various systems. The following Asian countries are concerned in the project: Bangladesh, Indonesia, Malaysia, the Philippines, the Republic of Korea, Thailand, Nepal and India.

Uganda has two colleges, the resources of which are entirely devoted to the upgrading of under-qualified teachers. Zimbabwe provides upgrading courses at Umtali Teachers' College, running parallel to its normal three-year teacher training courses. The teachers are considered to be professionally competent already, and therefore they need only academic upgrading or what are called "general academic education" courses and "foundation of education courses". These comprise the greater part of the upgrading programme. In Malawi a clear distinction is made between INSET correspondence courses leading to public academic exams and upgrading courses proper, which deal with the methodology of the teaching subjects and professional competence in the classroom. These courses are organized both through postal tuition and by residential components. There is an interesting development in a combination of correspondence courses and the Radio network, similar to that used in Thailand by the Sukhothai Thammathirat Open University. Students follow the broadcasts in groups and do assignments, which are supervised by tutors in their areas.

Putsoa (1970) estimated that in Swaziland there were only six hundred primary school teachers who were unqualified or underqualified, but his figure represented 35% of the primary teaching force. A two-year

programme was set up at William Pitcher College, where unqualified teachers and teachers with low qualifications could obtain qualified status. One term a year the trainees resumed their normal teaching duties. They were visited regularly by their college tutors and completed a number of specified correspondence units.

Combating 'Burn-out'

Corrigan suggests that the number one problem in American schools at present is teacher "burn-out". Teachers are leaving at such a rapid rate that another severe teacher shortage is imminent. Corrigan believes that teachers are leaving the profession not only because they and their families cannot survive on their salaries but because the proper conditions to practise their professional job no longer exist. The stresses caused by the lack of proper conditions in the nature of the school setting itself is therefore an equally significant reason for the demise of teaching. Even though a growing number of schools in America are persisting in efforts to develop humane, individualized and socially responsible climates, schools have not made fundamental changes in the roles of teachers. Corrigan says that several studies show that teaching is listed as one of the most stressful occupations, well ahead of air-traffic controllers, for example. He attributes teacher stress to the following factors:

- low esteem and lack of appreciation by the public;
- excessive paper-work, which limits pupil-teacher-parent interaction;
- unreasonable loads, large classes and accompanying problems of discipline;
- censorship of content, textbooks, and methods which threaten teachers' intellectual integrity, creativity and freedom of the mind;
- treatment of teachers as executors of somebody else's orders rather than professionals capable of making educational decisions.

(Corrigan, 1982, p.125)

The role expected of the teacher has greatly changed in the last thirty years. Goldsmith, while writing about the village schoolmaster in The Deserted Village, said:

And still they gaz'd and still the wonder grew.

That one small head could carry all he knew.

He was illustrating the awe and respect in which the country people held their village schoolmaster. Goldsmith wrote in the 18th century, but until fairly recently a teacher, particularly at primary level, was thought of in that way. Lauwerys wrote:

Not so long ago a teacher was a teacher, at least at the elementary level. He could turn his mind and his hand to every job that needed doing. With equal assurance and confidence, he taught reading to infants or history to young adolescents. He proffered advice and counselling at all levels, and even to parents. When promoted, he administered the affairs of a school or of a school board, keeping the books and designing a new building when needed.

(Lauwerys, 1971, p.7)

In recent times all that has changed. The impact of modernization on educational systems means that teachers are expected to bear a heavy burden as necessary contributors to this process of development. The same forces of modernization have also raised the concept of INSET to a very prominent place in teacher development. According to Klassen and Leavitt (1977), education geared to national development in its fullest sense means education for new occupations and new functions as well as for the extension of educational service at all levels. This implies that INSET programmes must be provided to prepare teachers to serve a broader range of educational needs, and if they are not, then the likelihood is that they will be unable to cope, and the consequences of that are nervous exhaustion, frustration and eventual burn-out.

Christiansen (1980) in his study Needs of Secondary and Elementary Education in the 1980's in Colorado, U.S.A., suggests that the best learning environment is one that not only meets the needs of the student, but also in which the teacher receives emotional and administrative support.

In his terms, INSET programmes should therefore not only help teachers to keep up with the profession, they should also include provision for combating the "burn out" syndrome and opportunities to develop a sense of personal renewal, continued confidence in abilities, and new developments in various fields of study. He suggests that such renewal and regeneration can be provided through diverse INSET methods at local, regional and national levels, and they should include research into troublesome areas and the ability to cope with inner and outer change and to choose and practise values.

Corrigan (1982) lays great stress on the essential conditions requisite for professional practice to combat "burn-out" and the teacher drop-out. He draws particular attention to the fact that many teachers are trained in the latest knowledge and skill and are then placed in work situations where they cannot use them. An example of this is South Africa, where the problem of teacher shortage is already acute, and where 80% of the teaching corps is underqualified (see Chapter 3). The need for reform has become urgent because among black underqualified teachers, the burn out syndrome has reached epidemic proportions. Hartshorne puts this problem in perspective:

If a new spirit and approach is to be achieved in education, urgent and immediate attention should be given to the position of the teacher, his academic background, his professional training, his further development during his teaching career, the conditions under which he works, the salary he is paid and the status he has in the society which he serves.

(Hartshorne, 1982, p.12)

Hunter notes the frustration of the teachers after the riots and subsequent turbulence in Soweto in 1976:

In some parts of the country, significant numbers of African teachers resigned, saying that after a generation of fruitless requests for the improvement of (Bantu) education they can no longer support the system.

(Hunter, 1978, p.19)

He is strongly supported by Motlana, (1978), who believes that many black teachers leave the system not just because education is based on ethnic and cultural segregation and an unfair distribution of resources, but

because of the "burn-out" caused by the dreadful conditions in which teachers have to work. These include very large classes (of sixty and more), poor attitudes of parents and pupils, poor discipline and poor facilities, all of which lead to stress, fatigue and frustration. He highlights the frustration of the teachers as a cause of the drop-out from the profession: There are many thousands of black teachers now in commerce and industry because of the intolerable conditions in the classrooms, discrimination in salaries and conditions of service.

It seems necessary, then, that in any strategy for the provision of INSET a component must to be included similar to the American experiences of Chirstiansen (1980) and Blake (1980), the purpose of which will be to support the teachers and create a renewal and rebirth rather than burn-out, frustration, lack of interest, disillusionment and eventual drop-out.

There is widespread belief among educationists that because for many teachers now the rewards are few and morale is low, a large number of the best teachers consider bailing-out. They recommend that these realities should be addressed, together with the salary situation, if the profession is ever to attract the brightest minds to teaching as a career. Educationists believe that the future of professional education is tied to improvement of the school setting, because the professional status of teaching will not improve merely by expanding the base of knowledge and skills of teachers, though these are acknowledged to be essential factors in achieving professionalism. Furthermore, it seems to be generally accepted that in view of the present crisis in schools, teacher-training institutions, as the development arm of the profession, must work through INSET with teachers, administrators, school boards and legislators, to discover new ways to create better conditions for professional practice as well as professional study. According to Corrigan, INSET should be a continuation of pre-service training:

Central to a new design of teacher education for the 1980's and beyond is recognition of the fact that pre-service education, in-service education, and the schools and colleges themselves, are interrelated and interacting components of ONE education system.

(Corrigan, 1982, p.25)

Studies carried out in the U.S.A, for example, that by Blake (1980), on helping teachers to deal with the 'burn-out' syndrome, emphasized the importance of primary preventive mental health. An in-service programme was designed and put into effect by the three-county Human Services Centre in Wisconsin to help school personnel to deal with the signs and symptoms of teacher 'burn-out'. Acting on the principle that the prevention of disorders as well as treatment was in the best interest of the community, a 'roleplay' in-service course was presented to 429 teachers and administrators in eight school districts, in the hope that the programme would also positively affect students, by reducing 'burn-out' symptoms among teachers that might otherwise interfere with the quality of classroom performance. Responses to evaluation questionnaires, revealed that most of the participants in the in-service courses, indicated that they were able to identify various symptoms of 'burn-out' displayed in the role-playing. They thought that the workshops were effective and beneficial to themselves and their fellows in dealing with stress, depression and other symptoms of 'burn-out'.

Adjustment to Changing Conditions

Masoner (1982) dean emeritus of the University of Pittsburg school of Education, in Guidelines for Teacher Education Reform stresses the need for INSET to help those in education to adjust themselves to the changing conditions thrust on them through the explosion of knowledge, technology and social changes:

We live in a time in which change is a major force affecting all aspects of our lives. Our world of today, as well as our world of the future, demands a new and improved kind of education to meet challenging needs and problems not in existence even a few short years ago. Hence, it is incumbent on those of us who comprise the education profession, in co-operation with other interested and concerned individuals and groups, to undertake the task of developing new and improved programmes for the preparation of those who serve in our schools as teachers, administrators, and educational specialists.

(Masoner, 1982, p.32)

The 20th century has witnessed an explosion of knowledge. It is said that knowledge now doubles itself every ten years and that this time-scale is rapidly decreasing. We live in an age of computers, in the midst of a technical revolution, in which rapid change is thrust upon us. In many countries there is concern that the teaching profession should adapt itself to these changes to avoid becoming stagnant. Educationists agree that for the profession to keep dynamic teachers must be equipped for the challenges and changes that are thrust upon them in teaching method, classroom management and subject content. Educational publications are full of discussions of new subjects now appearing in the curricula of schools and colleges, particularly in England and America. A very broad core of subjects is offered, and these need to be taught by adequately trained teachers. Not only do teachers now need to know how to use modern technology such as computers, film, T.V., overhead projectors and video recorders to supplement their own teaching, but the children, who are the ultimate focus of all schooling, must also be taught how to use them. The content of the traditional subjects has changed. Schools have to cope with the appearance of such subjects as Computer Science and Domestic Science (which has developed from cookery lessons). Teachers must therefore be trained or retrained. As Lord Glenamara (1981) points out:

The new technologies in industry demand very much better educated young people than we produce today - young people who have the mathematical, scientific and practical background to enable them to operate and develop all the industrial wonders now available to us.

(Glenamara, 1981, p.5)

Educationists everywhere agree that the teachers must become aware of the new developments and the changing knowledge content of teaching subjects. They promote the idea that INSET provides an efficient and inexpensive cheap means by which the teachers can learn about new methods of teaching subjects, changing content, and the different ways of organizing the modern school and its curriculum. Kazem, writing on preparation for the 21st century, refers to the changes now taking place in our thoughts, actions and expectations as it approaches, and the insecurity that teachers may feel as a result of these changes in concepts, goals, societal needs and resources:

Changes call for effort, imagination and dealing with the unknown. Changes normally cause more insecurity. Insecure people get more insecure with change and faster change. Nevertheless, we are facing serious, dramatic, unprecedented changes due to the explosion in important areas such as information, technology and population. All three are interrelated with respect to causes and interaction, and all cause chain reactions.

(Kazem, 1982, p.27)

According to Kazem, technology is both a vehicle for innovation and also one of its causes. It is more than products, hardware or programmes. It is a system and a state of mind. The world has changed drastically in the last twenty years and will change even more drastically in the next twenty years. Teachers are moulding the young today to fit into the tomorrow of a complex fast-changing world. The only way by which practising teachers can prepare both themselves and the young for this fast-changing world is by taking INSET courses that presuppose the notion of life-long education and changes in attitude, skills and knowledge.

Kelly attributed the following quotation to the anthropologist Margaret Mead:

To the multiple functions of an educational system we must add a quite new function: education for rapid and self-conscious adaptation to a changing world....no one will live all his life in the world into which he was born, and no one will die in the world in which he worked in his maturity.

(Kelly, 1981, p.53)

Developing "third-world" countries have particular difficulties in adjusting themselves to changing conditions. We may take Africa as an example. The very word African is misleading, since it refers to a very large continent with heterogeneous cultures, politics and problems. It would therefore be impossible to deal here with all the educational issues involved. Smart, president of the Association for Teacher Education in Africa, has identified three main problems in African education and its adjustment to changing conditions. These are modernization, rehabilitation of local cultures, and political stability:

The countries of Africa are all caught up in the modernization process. They are harnessing their physical resources and their human talents and skills to catch up with countries like the USA, West Germany, and Japan in technology, infrastructural amenities and the quality of the lives of their peoples. Although it is a hopeless race, to travel hopefully, is better than to arrive.

(Smart, 1977, p.33)

The problem of the rehabilitation of the traditional native cultures is more difficult to resolve. Smart (1977) postulates that the problem of Africa is the people's search for identity. He is supported by Dhlomo (1983): "combined with adjustment to changing conditions, the colonial experience inflicted cultural schizophrenia on the African peoples because they became people of two worlds, African by birth and upbringing, but unsuccessful Europeans in intellectual modes of thought and cultural reflexes." A striking example of this is South Africa. To succeed in the colonial world, the African had to become assimilated into the Western way of life. There is now a move to revive the African cultures and pride in being African. "Black is beautiful" and negritude are moves in this direction. Colonialism has left Africa with a set of superimposed values, Africa will reject them and go back to its own.

The third problem that many developing countries have to adjust themselves to and cater for in their INSET programmes in the search for political stability and national unity. Again the emergent African countries are prime examples. The main causes of the problems are the tribal diversity in each country and the ignorance of most Africans of complex modern politics. Education is seen as the panacea for all these problems. "Most African leaders believe that education will help to solve the problems. Ours is an age of faith in education" (Smart, 1977, p.34).

But Smart points out that there are dangers inherent in this, because the revival of cultures would need to consider three aspects of education: content, skill and attitudes; and it is doubtful whether this could be achieved by INSET strategies alone. Hoyle and Megarry (1980) make it clear that "INSET is no panacea. It cannot make much impact on those fundamental, social, cultural, political and economic constraints within which teachers and schools have to operate.

As noted below, leading educationists agree that the problem in Africa and other "third-world" countries in Asia and South America is that conditions change rapidly and education does not keep pace with them. As the numbers of students explode and aspirations for education grow, teachers should be trained for new roles that go far beyond the traditional roles of teaching with text books and a blackboard. They also agree that "third-world" teachers must now be involved with curriculum development, counselling and many other activities if they are to provide an education that is relevant and worthwhile and keeps pace with the changes. A hopeful possibility is the increased use of technology, particularly radio, television and video, in some countries. The value ascribed to educational technology in Nigeria, as noted by Okunrotifa, is a good example of the important role of helping teachers through INSET to make use of the technology and the new demands now made upon them:

In Nigeria, the aspect of educational technology which is most popular is the media. There is hardly any of the well known-media of education that is not being used in one form or the other for instructional purposes. Thus, television, radio, films, filmstrips, slide series, overhead transparencies, flat pictures, and different kinds of graphic materials feature in the country's education.
(Okunrotifa, 1977, p.75)

This implies that the teachers already in service have been taught how to use such aids.

Kazem speaking particularly of "third-world" countries, stresses the need for education systems to provide opportunities to teachers in service to re-think their role and to prepare for a change in outlook. He believes that the assessment of educational needs of a changing society is not an easy task since the needs continue to change with the society. The chief concern and one of the main objectives of INSET must be to devise strategies for adjusting the curriculum and educating teachers in service to cope with the constant needs and changes in society:

With the declining role of the traditional teacher in teaching, the acquisition of subject matter and facts, the education of teachers must stress the concepts and skills of leadership and management. Static, verbal education instead of active, dynamic and

action-oriented education, is the greatest danger in the systems of developing countries because it inhibits progress. With more technology, the twenty-first century will bring more leisure to individuals and institutions. Teacher education must pay more attention to the concept of time and how to manage it.

(Kazem, 1982, p.31)

To emphasize this point Kazem (1982) points out that during the present century the methods of organizing work in factories and technologies applied have been transformed so drastically that one may speak of a new industrial revolution. There have been parallel changes in the distribution and dissemination of knowledge and information, particularly at the level of mass communication. Speech and visual presentations can now be recorded, stored, transmitted and made available to large numbers of people easily and cheaply. The equipment at the disposal of teachers not long ago was restricted to talk, chalk, books, a few models, and sometimes a workshop. It is now vastly increased in range and complexity and includes, for example, television, video-tape, film-strip, learning machines, computers and language laboratories. Teachers must be taught how to use such technologies in their lessons, and not see them as a threat to their work, but as a means of enriching it.

A most striking and important statement on INSET is to be found in the final report of the Unesco Conference on Education:

If education is to meet the demands of the time and of the coming decades, the organization, content and methods of teacher education must be constantly improved.... Hence a comprehensive policy is needed to ensure that teacher education is organized as a continuous co-ordinated process which begins with pre-service preparation and continues throughout the teacher's professional career. In such a system, pre-service and in-service education should be integrated, fostering the concept of life-long learning and the need for recurrent education.

(Greenland, 1983, p.23)

The objective then, of helping teachers through INSET to adjust themselves to changing conditions is very important and relevant, though it poses some particular problems that policy-makers and planners will have to consider in the provision of INSET for future and present needs. Flowers's (1983) reference to Rip van Winkle no longer seems ludicrous. There is no doubt that we are living in a time of amazing and

accelerating growth of technology. How we live in the coming decade, indeed the quality of our lives generally, will depend to a considerable extent on the teachers now in service. Lord Glenamara in the Joseph Payne Lecture on Reflections on Education in the Eighties asks the question: "What are the consequences of these breathtaking technological and industrial changes for education?" and answering it supports Kazem's view:

First, there should be no doubt about the need for reciprocal educational change. Factories, offices, homes, transport communication, towns have all changed out of recognition in recent years, but many schools and classrooms are largely unchanged from what they were thirty years ago - both in appearance and in the activity within them. Their pupils are being prepared for a world which will soon no longer exist.

(Glenamara, 1981, p.5)

Summary Statements about Aims

From the foregoing it may be readily agreed that the aims of INSET can be both general and particular. They differ with regard to strategies, but they have in common the fact that they all deal with the continuing education of the teacher and his professional development. In attempts to improve the quality of education, most countries use a variety of in-service programmes to deal with particular objectives and problems. As has been noted above, in developing countries the aims of INSET are generally related to the promotion of national development. The rapid increase of school populations at the primary level has created a great demand for better-qualified teachers, and changes in the school curriculum combined with the advances of technology and the explosion of knowledge have created a need for a wide range of in-service programmes, both for under-qualified serving teachers and for those who are qualified but who need to improve their professional competence, or to attain any of the objectives discussed above. This is also true of developed countries. But different countries and even regions within countries have different needs, and a vast range of INSET takes place globally at national, regional and local levels. Sharp (1979), for example, says that in America:

... during the decade of the 1970's the in-service education of teachers has been one of the most frequent topics of discussion by educators at all levels in America. The discussion, even debate, among groups and individuals has frequently centred on emotional and political consideration for in-service teacher education.

(Sharp, 1979, p.54)

He also emphasizes the fact that since there is such a large variety of requirement, in-service programmes are as varied and diverse as the aims that can be formulated for them. Nicholson (1976) reviews 2,000 books, periodicals and unpublished papers and in his thesis he underlines the confusion that exists among providers of INSET concerning the sophistication of the great variety of the methods and aims formulated for INSET. He says that the providing agent normally establishes the priorities in INSET and therefore determines the aims.

Mbiti suggests that most developing countries are faced with an academic problem of shortages of adequately trained teachers at the primary school level. He says:

When this problem is contrasted with the need for in-service education for practising teachers, and when it is realized that every practising teacher needs to be kept abreast of the ever-changing curriculum demands, there occurs an obvious problem on the part of governments in establishing priorities.

(Mbiti, 1979, p.67)

In Mbiti's terms, then, the priorities must be established first, then the aims can be formulated. It was agreed by educators from all over the world at the 1984 Bangkok Conference on Teacher Education that whatever the state of development of a country, whatever the priorities may be, teachers need different forms of INSET at different periods of their careers. This requires the formulation of explicit, definite aims, Morant (1981), for example, sees the careers of teachers as falling into four different phases, according to the length of time they are in the profession. He classifies these phases under four broad headings; Induction needs, Extension needs, Refreshment needs and Conversion needs. There is a close similarity here to Keast's definition previously cited. According to Morant, 'Induction' needs concern the period immediately after an appointment to a new post and the probationary period. 'Extention' needs deal with the early career as a subject or

class teacher, the middle career period in which the teacher is serving as head of a department, and the later career period in which the teacher is serving as a head or deputy head. 'Refreshment' needs relate to the professional needs of teachers who have to teach a subject or age range that is new to them, or to counteract the stultifying effects of what Morant calls "excessively repetitive professional experience", such as the same post in the same school with similar type of children. The last category suggested by Morant is that of 'Conversion' needs, which covers the period before redeployment or promotion, or just before retirement. Thus the whole period of a teacher's career from the first appointment to retirement is covered. Strategies for INSET are therefore likely to fall under one of these very broad sub-headings and will embrace all the objectives discussed above at some period of a teacher's career.

The general aim of INSET, in any situation, is to improve the quality of the teaching and to instil the habit of continuous life-long education. It is clear that there will always be a large number of teachers who are highly effective and successful in their work, who have a clear understanding of their professional aims and who obtain satisfaction from their vocation. Most however, may not find themselves in this fortunate position. For example, it was reported that those teachers described in the Lord James Report (H.M.S.O., 1976, P.42) who were most successful were those who made use of in-service opportunities to improve their qualifications and professional competence. The recent investigation into education in South Africa by the Human Sciences Research Council (1981) refers explicitly to the aim of INSET as the means of the continuing education of the teacher:

Continued professional growth with a view to better service to the community should be a basic characteristic of all professional persons....No training no matter how completely or comprehensively it is presented, can provide for all aspects of future development in the professional field. It can therefore be stated categorically that continuing training is a need of teachers in all teaching communities.

(H.S.R.C., 1981, vol. 6 p.115)

The reference to continuing education dispels a widely-held misconception in many areas of the teaching profession that when student teachers leave the training colleges that is the end of the matter. Hartshorne (1982) says that all that the new trainee actually has is a certificate of qualification for a profession that requires in-service education and training throughout the teacher's whole career.

The British Department of Education draws attention to the fact that: "qualifications and training alone do not make a teacher. In-service training has an important part to play in the career development of teachers. All teachers need from time to time to avail themselves of in-service training" (H.M.S.O., 1983, p.26).

The days, then, when the initial course of training of two or three years' duration sufficed have long gone. There now appears to be an increasing tendency everywhere to regard the primary aims of INSET as the improvement of the professional competence of teachers and the provision of professional training throughout their careers. Lindop (1983) crystallizes these important aims:

Far from the basic professional qualification being a survival kit for life, capable of sustaining the practitioner from blast-off through a whole career in remote orbit, it is increasingly looked upon as only the first of many components which should ideally be related and strung together on the life-line of professional experience. Hence initial training, induction, up-dating, refreshment and training must be seen as part of normal professional experience, and most of these fall within the category of in-service.
(Lindop, 1983, p.2)

Incentives

The question of incentives for teachers to attend INSET courses needs to be briefly discussed, since these are closely related to the aims of INSET and they are not always explicitly stated. In 1981 the Asian Programme for Educational Innovation and Development carried out a survey on this among twenty-three countries, and it came to the conclusion that

"incentives for whole-hearted participation in in-service education are not always present in INSET programmes and in the conditions under which they are made available to the teachers" (APEID, 1982, p.5.)

The aims of INSET may be very desirable and noble, but if the INSET courses are not enthusiastically patronized or at least willingly attended, it seems unlikely that they will be successful.

A study of the literature on INSET suggests that incentives for teachers concerned with INSET courses may derive from three sources. The teachers attend voluntarily either from interest or prestige, because they are legally required to, or because they receive some reward, accreditation or certification. The inference is that teachers may well be disinclined to take part unless there are clear personal incentives. This does not necessarily indicate that they must be expressed directly in financial terms. However, as Niven (1980) suggests, the close relation between the aims of the INSET courses, participation in the courses, and the longer-term opportunities for progress and promotion, must be clearly recognized. An excellent case can be made, for example, for issuing certificates for successful completion of INSET courses. These are likely to carry more weight if universities or colleges are involved. Niven (1980) points out, however, that the certificate should be awarded for successful completion of courses rather than for an endurance test of attendance. Success in his terms means that the teachers must satisfy the objectives of the course.

A survey of the literature from America suggests that in many states there is a trend to allow teachers to accumulate credits through attending INSET courses and to link these to the teachers' salary structure and enhanced eligibility for promotion. This would provide a strong personal incentive for most teachers. For example, Theis (1981) reviewed recent literature on Teachers' Attitudes Towards In-service Programmes. One of the conclusions he came to was that "incentives to come" was an important consideration to teachers. In spite of this, the appeal of in-service education as an opportunity for teachers to develop their knowledge and teaching skills should not be seen by the teachers as being irrelevant to their needs. When formulating the objectives for an INSET programme, therefore, consideration must be given to the incentives.

The Agents and Sponsors of INSET

A search conducted at the E.R.I.C. clearing house on teacher education indicated that there are many different agents in various countries who are concerned with INSET programmes. These agents represent government departments, academic institutions, professional teacher groups, private initiatives, teachers' centres and private sector. Some are either directly involved in the INSET programmes or they fund them, or supply resources to support them. In many cases the demand for INSET is school based and initiated by the teachers or schools themselves.

Sharp (1979) observes that during the 1970's in-service education attracted increasing interest. Such questions as who should control it, who decides what it is, who delivers it, and who pays, were posed. These are questions that arouse strong feelings in interested parties, teachers, school administrators, professors, school boards, state and federal agencies, and legislators. He concluded that in America there is keen competition for control over in-service teacher education. Traditionally, higher education has been seen as the provider of most in-service work, through continuing and graduate education. Not only the teachers and universities want control; states and local school districts want it also.

Leskiw notes that in many countries, including Canada and the U.S.A., serious disputes have arisen and will continue to arise over responsibility for and authority over in-service education:

Planning and preparation of activities do not usually advance far before serious questions are raised, e.g. What is the role of the central authorities vis-a vis local agencies? What assistance can local agencies expect without autonomy? What roles are played by the profession?

(Leskiw, 1979, p.85)

Avveduto (1979), Director General of the Ministry of Education in Italy, suggests that provision of INSET should not be the sole responsibility of governments or private agencies, but should be the result of joint efforts.

He wrote :

All major participants in in-service education must have a voice in policy formulation, school districts where these exist , the teaching profession, higher education institutions and Ministries of Education.
(Avveduto, 1979, p.68)

Morant (1981) an important writer on this subject, distinguishes three groups of agents of INSET, which he calls providing authorities, providing institutions and providing agencies. This is a useful differentiation.

Providing authorities.

Morant argues that since education is the responsibility of the government concerned it should be enshrined in the national constitutions and laws of the country. The Government then delegates the responsibility for INSET to district and regional authorities since the educational administration and supervision are decentralised. Though having considerable autonomy, they are still accountable to the central government.

Providing institutions.

These are defined by Morant as "those educational bodies which have a clearly discernible corporate identity in terms of possession of academic and non-academic staff, and control of premises, equipment and materials, and which are responsible for teaching as the prime function" (Morant, 1981, p.16).

According to this definition, such providing institutions would be the universities, the polytechnics, colleges of education and teachers centres. Apart from the centres, the other institutions offer long courses of one or more years during which some form of certification is granted. The courses offered may be full-time or part-time and, as might be expected, there will be a great variety of courses on offer, ranging from certificate and diploma courses to degree-level courses. With the great development of INSET courses and the great interest in their content, all over the world such institutions are now either putting on shorter courses or allowing their buildings and facilities to be used.

The rapid development of teachers' centres also, which tend to be controlled by teachers, means that their needs can be addressed from within their own community. This is not new, for a variety of INSET courses, both long and short has been offered at universities and colleges for many years. More recently, however, with the development of teachers' centres, they are being conceived planned and organized through them.

Providing agencies.

These will generally represent the whole complex web of society such as the universities and colleges, the private sector, the teachers' unions and professional associations, as well as the state departments of education which support INSET programmes in developing countries. Examples of these are the United States AID programme and UNESCO. Support is given in the form of specialized knowledge and finance. Such financing is complex, since it comes from a wide variety of sources. In 'third-world' countries such as those of Africa and Asia, huge grants are made to fund the upgrading and training of teachers. This money comes direct from the state departments.

Some mention must be made here of Dr Leon Sullivan, a man who has had a remarkable impact on the funding of educational projects such as Teacher Opportunity Programmes, which is the subject of this thesis. Dr Leon Sullivan is a black American Baptist preacher and civil rights campaigner. The Sullivan Code of Principles are his brainchild. Dr Sullivan sits on the board of General Motors, and from this powerful position he is able to influence and put pressure on American companies operating in South Africa to adopt his principles of fair employment practice. One of the principles refers explicitly to education and insists that companies must accept responsibility for the improvement of the education of the indigenous population. As a result of this, a large proportion of the funds for running Teacher Opportunity Programmes is derived from these American Companies.

The Sullivan principles have been universally accepted, and multinational firms are expected to subscribe to them. A points system operates, and each year a report appears in the American national newspapers declaring the level of involvement of these companies. Where a company scores badly, sanctions, such as the threat of disinvestment, are imposed. In South Africa, for example, over three hundred multinational companies are operating, and according to O'Malley (1983), chairman of the South African Sullivan Task Force, over half of these firms substantially fund educational programmes and projects. Massive grants are made available for the upgrading of teachers through the public affairs offices of multinationals such as Firestone, Palmolive, Mobil Oil, General Motors and Volkswagen.

INSET is very vulnerable in many developing countries because it depends to a very great extent on funding from sources other than the government. In recent years it has become particularly vulnerable because of inflation and the determination of governments to cut public expenditure. The combined effects of inflation and cuts in public expenditure have created an economic climate in which it is difficult for INSET to flourish. Although it is now recognized by educationists everywhere as the surest way of improving the quality of education, there is simply less money available for INSET at a time when the need is probably greater than ever before.

The Organisational Setting

An analysis of the provision of INSET in other countries reveals a great variety of methods and organizations employed by various agencies. The choice of method and organizational setting generally reflects particular needs, conditions and constraints. Yarger (1976), an important writer in this field, identifies seven different kinds of organization. Each of these will be dealt with briefly.

The Independent In-Service Programmes

The focus of these programmes is on the direct concerns of the teachers, and there is no formal association with educational institutions such as training colleges, universities or the departments of education. Howey outlines the very distinct advantages of such programmes when all "...red tape is severed and the programme directors and implementors can respond directly to perceived client needs" (Howey, 1977, p.34).

Teachers become involved in these courses voluntarily, and the programmes are directed and staffed by teachers or former teachers either full-time or part-time. They therefore have a high degree of acceptance by the teachers. Finance is an important factor in such courses, since it is tied to the vagaries of economics.

The Almost Independent In-Service Programme

This type of programme shares many features with the independent in-service education programme noted above. According to Yarger (1976), the emphasis in such programmes is on "real world" problems, and programming typically relates to activities, skills, and materials that are directly applicable to the classroom situation.

In this type of programme there is a strong tie with educational institutions. As with the independent INSET programme, funding is sometimes precarious.

The Professional Organization In-Service Programme

The literature on in-service programmes suggests that teacher organizations all over the world are becoming more and more active in the provision of INSET courses operating within the framework of the organization. This is evident in the U.K., for example, where teachers' organizations such as the National Association of Schoolmasters and National Union of Teachers are very active, and in the U.S.A., where the

American National Education Association is involved. In South Africa the Cape Teachers' Professional Association, the Natal African Teachers' Union and the Transvaal African Teachers' Union put on courses either independently or in collaboration with the Private Sector. Often there is support from the universities and colleges of education. In the case of Teacher Opportunity Programmes, for example, the teacher's unions, the private sector, the universities and the Urban Foundation took part in the conception, development and running of the programme.

The Single Unit In-Service Programme

Yarger (1976) suggests that this is the commonest type of educational INSET structure or organization in America. This is supported by Howey (1977). The single unit programme is normally organized and administered by a single educational institution, such as a university or a teachers' training college or even offered by a school system itself. Such a programme can be administered, organized and operated in many ways, but it always has a single unit as its focus. Accountability for the programme is vested in the administration of the hosting institution, and the ethos of the programme reflects the approved institutional goals.

The Free Partnership In-Service Programme

Such programmes are usually a joint venture between a school system and a university or training college. 'Free partnership' implies that the collaboration may be between several universities, schools, or even agencies not directly concerned with education. It also implies that the partnership is not entered into under duress of politics or legislation. The structure and organization of such programmes, their finances and their modus operandi vary greatly; but they obviously attempt to satisfy the needs of those sharing in the partnership.

The Free Consortium In-Service Programme

A free consortium implies that three or more different institutions will take part in an INSET programme. Under normal circumstances these will be geographically near each other but not necessarily so. The freedom implies that there is no compulsion to take part. Since in a consortium there are many more interests and demands to be addressed, the organizational aspects, the commitments and the policy considerations will be correspondingly more complex than in a simple partnership.

The Legislative-Political In-Service Programme

As the title implies, the whole organization and infrastructure of a legislative or political in-service programme are prescribed by legislation or political influence. Education departments, as representatives of the Governments concerned, supervise the whole programme. With regard to the financing of such legislative-political in-service programmes Yarger says ".... it is not unusual for a financial incentive to exist in an effort to entice eligible institutions to become involved" (Yarger, 1976, p.35).

This typology by Sam Yarger is given because he is at present a leading writer on the subject. There are other typologies of organizational structures of INSET, such as, for example, that proposed by Nelson (1976), which covers the same general areas.

Modes of INSET

The ever-growing reservoir of literature and knowledge on INSET indicates that there is a very wide range of in-service activities in which teachers may take part. Any list of these is likely to prove to be inconclusive. However, allowing for this, the modes of INSET might include such forms as the following, which have been compiled from the available literature, and back copies of magazines such as Teacher

Education, Education Today and The Journal of Educational Research. Moreover, a search at the E.R.I.C. Clearing House on Teacher Education reveals a list of thousands of programmes, research projects and conferences on INSET that have taken place all over the world. The following list is therefore necessarily selective.

Formal lectures at universities and colleges leading to the award of diplomas or first degrees.

Nelson (1976) calls this the Higher Education Model. They may require full-time or part-time attendance. The literature indicates that such courses combine micro-teaching sessions, at which groups of teachers come together and give demonstration lessons of particular techniques, plenary sessions at conferences, and distance learning through correspondence, television, radio and the press. This last is a particularly popular method in large rural areas such as Australia and many developing countries of Asia and Africa, where it is difficult to bring teachers to a central place. It is also used in developed countries such as England, as, for example, by the Open University. This method has many advantages, which will be discussed below.

Induction courses.

There is evidence to indicate that these are becoming increasingly popular in many parts of the world, to help new teachers to integrate experience and theory, or (as has been fully discussed above) to fulfil legal requirements by completing a probationary year.

Other modalities.

Other methods widely used in INSET are:

- teachers' "workshops", both school-based and course-based.
- "teach-ins".
- visits to other schools; classes; lessons.
- day, afternoon and week-end seminars on particular topics.
- Internship in model schools.
- mobile teams of "master teachers" in schools.

(See Himmler 1984 and Van Kuster 1984)

There are of course other methods that might be added to this list, but, as Morant (1981) suggests, most provision of INSET will rarely be exclusively "one-off" activities, but will combine or group the activities to contribute to patterns of study. They will also be influenced by such factors as the timing, where the INSET courses take up single sessions, afternoons, weekends or even longer periods such as vacations.

A study of INSET innovation and practice in other countries is important, since it may enable providers of INSET and planners elsewhere to avoid an excessively narrow interpretation of teachers needs. It is clear, however, that as Masoner (1983) observes, practices in other countries may not be directly transferable or replicated elsewhere because of different educational philosophies and the different needs prevailing.

School-based in-service courses.

Since a review of the literature on INSET indicates that there appears to be a universal trend towards school-based courses rather than those held at special centres, it is proposed here to discuss this modality in the light of recent research. The traditional and perhaps the most effective way of providing INSET for teachers is through regular or continuous school-based courses. They are likely to be most interesting to teachers because of the possibility of their having a say in content, form, timing and so on. Hall (1981) concludes that such courses are the most successful model of in-service education because they include three important factors: teachers acquire knowledge, they acquire skills and competences, and they undergo on-site practical experiences that require application of this knowledge and skill. There is, therefore, greater opportunity for teachers to get what they need. Thembela supports this view: "It is the teacher who knows what he needs. He knows where the shoe pinches" (TOPS, National, 1984).

There are many school-based research projects and programmes now in operation in other countries. An interesting development which has been widely publicized in the British educational press in recent years, for

example, is the school-based INSET courses being run in the London borough of Enfield by the Local Education Authority. (See Education Today 1983, Vol. 33, P.2). These courses recognize that the quality of teaching, and indeed of learning, is affected by particular factors in schools or areas, as well as by general factors. The Enfield Education Authority therefore provides a form of in-service education that could operate within a web of special factors and ground motives of a community and could be sensitive and responsive to professional needs of individual teachers and groups of teachers. Moreover, a scheme of this kind means that knowledge and ability can be transmitted between teachers and other professionals, such as the staffs of the teachers' centres, advisory teachers, inspectors, and the colleges and universities. Furthermore, Hicks (1981) considers it essential that the suggestions for school-based in-service projects should come direct from the schools themselves and not from other points within the education system. In the Enfield scheme, therefore, schools were invited to submit proposals for a project for the support of the L.E.A. They had to present full information on the nature, purpose, aims and objectives of the project as well as information on costing, staff and materials. Many proposals were rejected because they did not fall within the broadest definition of in-service education. Others were rejected because there was lack of evidence of careful thought and preparation on the part of the staff. This was considered an important factor in the success of the projects and their results. Hicks, who evaluated the programme, indicated that

during the four years the school-focused in-service education operated and was supported from central funds, great interest was generated in this method of professional development, as more and more schools became aware of its potential. There were many more applications than could be funded.

(Hicks, 1983, p.25)

There are many American studies that show the advantages to teachers of school-based courses of this kind. Barrell (1981) discovered that it helped teachers to set goals and to experiment with new teaching behaviour, and that such strategies for staff development proceeded from the premise that significant change occurred when the teacher perceived a need for change. The main component of Barrell's model was that the staff met weekly to raise problems and work through possible solutions,

and to observe each other by means of video recordings to evaluate how their classroom performance measured up to their previously identified priorities and role perceptions.

Another school-based American project was that carried out in schools in the New Jersey State Education Department. Burke and Ruh (1981) who carried out the research, came to the conclusion that school-based INSET courses should seek to increase competences, skills and abilities of the teachers, and the in-service staff development should be seen as a continuum. The important conclusions of this study were that the location of the INSET should be the school itself, or as near to the school as possible; the participants, that is, the teachers in the school, should take a positive part in the planning, development, execution and evaluation of the INSET, and the techniques and methods used for staff development activities should conform with fundamental principles and theories of effective teaching and learning. Such strategies, Burke and Ruh suggest, are a most effective way of providing continuous in-service courses for teachers particularly when they are designed for professional development at all levels, from class teacher to principal.

Bolam (1978), supported by Keast (1984), emphasized importance of assessing the needs and aspirations of the teachers when planning school based INSET courses and before defining the objectives, ordering priorities, or making decisions about content and approach.

Kafourty (1983) examined an interesting school-based in-service course in Seattle U.S.A. and gave some indication of what could be achieved by teachers in a school working together on a particular problem. The focus of Kafourty's study was the impact upon teachers of the rapid change created by technology, the purpose being to help teachers to develop strategies for adapting themselves to rapid change. This is one of the purposes of INSET which were discussed above. The procedure involved the presentation of a series of "mini-workshops", designed to inform the teachers of the rapid changes and their impact, and to present coping strategies that could be transferred to the classroom. The "workshops", were carried out for a full year with teachers, with a year's exposure to

knowledge of change variables and expedients for coping. The hypothesis was that a significant difference would occur between pre-test and post test results in that, by acquiring knowledge of the variables effecting rapid change and acquiring coping devices, the teachers would adopt a more confident, pro-active approach to the rapid changes facing them.

Results showed a significant increase in favourable attitudes and twice as much satisfaction as before the test. Teachers were willing to risk change, and the evidence of this was manifested in the new methods and approaches in the classroom which were voluntarily shared with the other teachers in the school. The teachers asked that the INSET programme should be continued as an approved school-based model.

Concluding Remarks about INSET Courses

The purpose of this chapter has been to survey the INSET literature in a global perspective with particular reference to objectives, definitions and strategies as well as to the modalities of INSET programmes. Such a study of provision of INSET in other countries will, it is hoped, help Teacher Opportunity Programmes and providers of INSET here in South Africa to refine their programmes and prevent an excessively narrow interpretation of the needs of black teachers and encourage them to draw upon the large and rich reservoir of literature on INSET.

It is not suggested that there will be or should be direct replication in this country of successful programmes that have taken place elsewhere. As was pointed out by Masoner (1982), this is rarely possible or desirable; but providers here should draw on this global experience and consider what is compatible with the particular circumstances in South Africa within which they have to operate.

South Africa is a member of the United Nations and therefore abides by its tenets. The United Nations Declaration on Human Rights of December 1984 holds that every citizen is entitled to an education, and that

primary education should be free. This article makes it obligatory for each member state of the United Nations to develop an education system that provides equal opportunity for all. Lijembe (1980) reported that at the conference of African ministers of education held in Addis Ababa in 1961, statistics revealed that only 10% of school-age children in sub-Saharan Africa attended school. The ministers therefore agreed that primary education should be universal, compulsory and free. However, in 1970 the enrolment ratio was still only 49%, instead of the 71% hoped for. In the 1980's, as Sislian (1984) indicates, economic and demographic factors still combine to frustrate efforts to achieve universal primary education throughout the African continent. On the other hand, there is not the necessary number of qualified teachers available to cope even with the present demand for education. Everywhere on the African continent, South Africa included, there are great numbers of unqualified and under-qualified teachers who are in need of professional and academic upgrading through INSET. It has been indicated that there are many different kinds of INSET in operation everywhere to suit the different needs of the countries at their varying stages of development. Since it is clear that not all this range of INSET will be suitable for any particular situation, providers have to select from this rich harvest, retaining the grain and ignoring the chaff. This applies to South Africa and in particular to the Teacher Opportunity Programmes, which is the subject of this thesis and whose focus or target population is 80,000 under-qualified black primary teachers. While there can be no direct transfer of programmes, what can cross international boundaries is the seed of an idea that can flourish under the special cultural and economic conditions of South Africa. The transfer of such ideas can be encouraged also by an understanding of the cultural background out of which such programmes grew, and what the logical steps in the development of the programme were, viz: the assessment of needs, the formulation of objectives, the development of strategies for attaining the objectives, the management of the programme, the application of evaluation techniques for feedback and improved operation, an account of problems encountered and how these were resolved, and important conclusions or lessons that have been learned. (See for example Greenland 1983).

It is imperative that South African researchers, agents and providers of INSET should make a study of other successful programmes and literature that presents the thinking of experts from all over the world on matters concerning the role of INSET in a developing society such as South Africa, which, as has been indicated above, is both a "third-world" and a "first-world" country. The experience of problems in running outstanding innovative programmes elsewhere and the critical issues involved are important in ensuring that INSET programmes such as Teacher Opportunity Programmes become more responsive to the broadening needs and aspirations of the black teaching force here. This survey of the literature on INSET has already revealed a rich source of information which may be regarded as an international guide to the development of the Teacher Opportunity Programmes because it will stimulate ideas on how to respond to new needs for educational development and suggest a wide range of procedures used in other countries that can perhaps be selected and adopted for use. This does not imply that the programme will be refined or improved simply by using a carbon copy of another country's programme or educational practice. Some mention should perhaps be made here of how such cross-fertilization of ideas should take place. We may take two countries as examples: Thailand and Nigeria. Thailand is a very poor "third-world" country, but it has made extensive provision for in-service education, particularly in rural areas. Nigeria is a rapidly-developing country because it has experienced an oil boom in recent years, and, like many other countries in Africa, including South Africa, it has great difficulty in providing teachers for a rapidly-expanding school population and in upgrading those many under-qualified teachers who are already in service.

According to Greenland (1983) Nigeria appears to have special relevance to the South African situation, because its problems are similar to those of South Africa. The unschooled and partly-schooled constitute the vast majority of the black population, and there are great numbers of under-qualified black teachers in both countries.

Adarelegbe, Dean of the Faculty of Education at Ife in Nigeria, reported that 70% of Nigerian primary school teachers are largely untrained and unqualified and that the remaining 30% of so-called trained and qualified teachers are practically illiterate in the new subjects such as mathematics, science and social studies which have been introduced to the school curriculum. Strategies for INSET had to be introduced for the teaching corps because

Increasingly there have arisen demands by Nigerians for a more meaningful and functional education at all levels. Nigerians have felt disenchanted at the alarming rate in what has been generally described as a national drop in standards of education at all levels.

(Adarelegbe, 1978, p.79)

Lassa (1982), further points out that the federal government of Nigeria wishes to provide primary education for all Nigerians and that it is clear that the success of universal primary education will ultimately depend on suitably qualified teachers. According to him, INSET is a matter of urgency in Nigeria because, there are over 180,000 unqualified and under-qualified teachers. Lassa points out that

Throughout the Federation, untrained teachers form the bulk of the teaching force. Since it is impractical to provide full time residential teacher education programmes for them, the only alternative open to Nigerian education authorities is to set in train a variety of in-service and vocational training programmes to upgrade and re-train the unqualified teachers in the Primary school system.

(Lassa, 1982, p.157)

Greenland (1983) investigated the form that INSET in Africa should take and what the available options were. There were great similarities in objectives, modality and content between Teacher Opportunity Programmes and the Nigerian in-service education programmes which were also responding to the challenge of providing INSET for great numbers of under-qualified teachers. Conclusions could be drawn and comparisons made. There are also differences, however; for example, an important difference is that Teacher Opportunity Programmes is funded and run entirely by the private sector, while the vast Nigerian programme is run by the state. A question immediately arises, therefore, whether the function of the private sector in South Africa should be to develop and refine INSET models suitable for replication on a grand scale by the state departments of education.

A study of the Nigerian INSET does not exclude a study of other African states, but it should be selective, since it would be impossible to do justice to them all. The extent of the problem is indicated by Sislian (1984), for example, when he observes that there are fifty-four sovereign African States, fifteen hundred main African tribes and many thousands of sub-groups.

Thailand is another example which, although it is a country remote from South Africa in language and culture, nevertheless INSET experience there has relevance for the TOPS programme. In South Africa there is a distinction between provision of education for blacks in the towns (the white urban areas) and the large numbers who live in rural areas and the "homelands". Thailand also faces the problem of providing INSET for a great number of under-qualified teachers among a very large rural population. Much of the INSET is therefore conducted by distance learning methods such as correspondence courses and the schools and universities of the air on radio and television. There is nothing of that kind in operation here at present, but such a strategy could have great potential in South Africa not only for the TOPS Programme but also for the government, which has committed itself to a policy of equal education for all racial groups and is attempting to improve the quality of black education in as short a time as possible. Most of the improvements hitherto, however have been in the urban areas. Education in the rural areas and in the "homelands" is lagging far behind the urban centres. "Whether one accepts the political notion of the South African Homelands or not, they remain depressed geographical regions which badly need the provision of good education facilities" (Dhlomo, 1983, p.22).

Much can be learnt from the innovations and experience of INSET programmes in countries such as Thailand, which is predominantly rural in character. Of the total population of 44 million, about 80% live in rural areas, and the income is derived mainly from the cultivation of rice, corn, tapioca, sugar-cane and rubber. A prominent Thai educationist, Sirisa An Wichit (1984), believes that economic development, to be meaningful, must involve the participation of the rural teacher, because although the living conditions of the rural population have improved in recent years, great deficiencies still exist

as a result of poor education, ill-health, malnutrition, pollution, and ignorance, all of which bar the path of progress. Dissemination of knowledge in all these areas may help to alleviate such defects. Teachers as agents of change are therefore urgently needed in the rural areas. This experience is very similar to conditions in the "homeland" and the rural areas of South Africa depicted by Dhlomo (1983) where there are several Teacher Opportunity Centres in operation (Kwa-Zulu).

In 1981 a national "workshop" on in-service primary teacher education in Thailand was organized by Thai academics at Khonkaen University to define the characteristics of the desirable rural community, the roles and competences required of primary school teachers in such a community, ways to develop in-service education programmes for teachers in rural communities, and the objectives of INSET programmes to achieve these. The objectives of the present provision of in-service education were adjusted to the needs of the teachers. Such a national "workshop" is long overdue in South Africa.

Dr Wichit Sirisa An, Rector of the Sukhothai Thammathirat Open University, indicates that in 1984 for educational development and social transformation in Thailand, it is imperative that new schemes of in-service education for teachers be designed for all teachers, especially those in remote areas, where continuing education opportunity is less (Wichit, 1984).

It is now generally accepted by educationists in Thailand that INSET programmes in the rural areas are necessary not only to improve the teachers' academic qualifications and competence in teaching, but also to promote community development and preserve Thai culture. INSET programmes such as TOPS can learn much from this, for in the rural communities of South Africa teachers are often the only people sufficiently educated to assume the necessary roles of leadership in development.

As the Black South African educationists Dr Absalom Vilakazi has pointed out "cultures are universal products of man and enrich themselves by borrowing freely from others and shunning the ways of culture purity" (Vilakazi, 1983, p.11).

The discussion of the philosophical dilemmas of African education is further explored by Ashley (1983).

Thailand and Nigeria are, however, only two examples, though important, of how Teacher Opportunity Programmes, or indeed any other INSET programme, may learn from the experience of other countries which could have a very positive influence on the provision and development of INSET in South Africa, whether the INSET is designed for under-qualified teachers or those who are considered to be already acceptably qualified.

Bolam writing on in-service education for teachers, says "it is no easy task to identify the needs and aims relevant to any particular educational activity, be it a third-year English lesson or an in-service course" (Bolam, 1982, p.19).

It is clear that in any INSET strategy for any country, no satisfactory definition of needs or objectives can be arrived at without adequate discussions, consultations and negotiations, all of which will need to go beyond the start of any programmes of INSET. Moreover, the fact that education in South Africa is controlled by the state profoundly affects the provision of INSET and its aims. A centrally-controlled education system such as exists here and in many other parts of the world could doubtless make the task much easier. If, for example, there were a decision at government level to introduce a particular methodology in all primary schools, the task of organizing in-service courses and formulating definite aims could be fairly straightforward. Under the present educational dispensation, however, INSET for this would have to take into consideration a whole range of possible methods or, in the present conditions, entertain the possibility of not introducing it at all. In South Africa a study of INSET in other parts of the world is urgently imperative.

Chapter 2 : The Background to Teacher Opportunity Programmes

The purpose of this chapter is to provide information about the background to Teacher Opportunity Programmes, the object of the evaluation dealt with in this thesis. Reference will be made to historical aspects and the social background of the status and quality of black teachers in South Africa. With regard to terminology, "Blacks" with a capital "B" is used to denote Bantu-speakers, and "blacks" with a small "b" is a comprehensive term to include all groups classified by law as non-white.

The Crisis in Black Education

In recent years the education system in South Africa has come under close scrutiny and has become a cause of great concern to those directly involved in education and to those in commerce, industry and the professions. The inadequacies of the black education system have given rise to much debate at educational forums such as The Senate Special Lectures in 1978 of the University of the Witwatersrand on South Africa's Crisis in Education. There has since been great concentration and discussion on the core problems and on the direction to be taken to solve them.

The education of the indigenous black peoples of South Africa is probably the most critical and immediate problem that confronts South African society, because a very serious crisis exists, which, if not satisfactory resolved, will lead to great discord and political and economic instability in the years ahead. The crisis in black education was forcibly and distressingly brought home to the government by the Soweto riots on 16 June 1976. It was estimated by the Cillié Commission that nearly fifteen thousand black school children rioted and went on rampage of vandalism and wanton destruction. The rioters were confronted by police in armoured vehicles, who used teargas, batons and guns to quell the disturbances. Many people were killed and injured, and the damage to schools and other property was estimated at R8.5 million.

On 24 June 1976 the State President appointed a commission under the Judge President of the Transvaal Provincial Division of the Supreme Court of South Africa, the Honourable Mr Justice Petrus Malan Cillié, to "...enquire into and report on the riots at Soweto and other places in the Republic of South Africa during June 1976 and the causes which gave rise thereto" (Cillié, 1978, p.2).

The commission was not required to make any recommendations, but was to examine the riots and determine their causes. The report was received amid wide publicity in the news media. All witnesses were under oath. The report identified the root cause of the riots as follows:

They were the policy on the medium of instruction in Black secondary schools, and the application of that policy, the organized resistance to its application, the official handling of that resistance and the failure of officials and policemen, to foresee the imminent eruption in Soweto.

(Cillié, 1978, p.41)

The destruction in Soweto was an explosive response to actions of the police and the authorities but it was the climax of over twenty years of frustration and dissatisfaction with the educational dispensation. The Afrikaans language issue was merely the spark that set off the explosion.

What resentment, bitterness and hatred could incite black school children to such a pitch of frenzy that they could terrorize their teachers and burn down the very buildings that were provided to educate them? Mphahlele, a prominent black educationist, argues that there are deeper reasons the riots:

If there is any lesson to be learned as a result of the violent outbreak of June 1976 and its aftermath, it is that Bantu Education had sought to peg the limits of human intelligence, and set up structures to contain those limits. The human intelligence had, after 20 years in a straight-jacket, busted the barriers and hollered to be free.... Consequently that intelligence hurled itself against guns and teargas and batons and finally took out its fury on the physical symbols of authority like buildings and alas, on its own self.

(Mphahlele, 1983, p.73)

There was subsequent bitterness, turbulence and discord especially in the Cape in 1980, and the violence still continues with no sign of diminishing in many towns in South Africa. The view of many officials in the government is, that the riots are politically inspired by groups such as the banned African National Congress, who use the children to create political instability, and by criminal elements who can operate freely in the turmoil created. There may be some truth in that, but it is the opinion of many educationists in all racial groups that the root cause remains the expression of the children's extreme frustration and hatred of a system of education based on ideological separation which they consider discriminates against them.

Hartshorne (1983) believes that the Soweto riots of 1976 are a watershed in the history of black education in South Africa, because the system nearly collapsed and the government was forced to take steps to remedy the situation.

In 1978 the Department of Education and Training replaced Bantu Education, and there has been great progress in the material sense since. Attempts have been made to lessen the Blacks' antagonism to the unfair system of education and "defuse" the explosive situation. This has been done by increasing expenditure, providing more schools, improving existing schools, insisting on a better qualified teaching corps, improving teachers' conditions of in-service and by introducing

compulsory education. But improvement must be both qualitative and quantitative. As Hartshorne points out: "It needs no prophet to predict that black education will be in a state of crisis as long as its quality is low" (Hartshorne, 1983, p.3).

An improvement in the material quality of black education on its own will not obviate the crisis or enable the black school-going population to realize the best of its ability and potential.

Dhlomo (1983), discussing the quality of black education expresses the opinion that students have a fixation with certificates and value success by means, which reduces the enjoyment of the learning experience. He attributes that to poor teaching, a strongly maintained tradition of rote-learning, ritualistic approaches to education, and a high degree of passive dependence on teachers. Such a situation is exacerbated by factors such as poor home environments, which are far from being mentally stimulating, since they lack even such basic physical necessities as adequate lighting.

The primary disadvantage is undoubtedly the very low quality of the black teaching corps. Most black teachers are inadequately qualified, and many thousands of newly qualified teachers will be needed before the end of the century. These can be supplied only by the education system. There is still much therefore, that the government has to do in the short term to raise the quality of black education and thus avert chaos, for the quality of black education will continue to be low as long as there is such a severe shortage of adequately qualified black teachers with a professional approach to their careers. The poor quality of the training corps is closely connected with the extreme frustration, which has been expressed by the acts of vandalism by the black pupils since 1976.

The opinion now expressed by educationists and academics of all racial groups is that despite the debates, reports, and talk about reform, as long as Apartheid, ideological separation and racial discrimination are entrenched in the education system provided, there can be no genuine reform, since the system fails to satisfy the needs of the people it is supposed to serve. Until quality is given the same emphasis as quantity,

the educational dispensation will be regarded merely as provision of more of the same. The present crisis, unrest and school boycotts seem to indicate that such pessimism may well be justified, and that the situation will persist until the perennial flash-points of Apartheid have been abolished. "Virtually all humanity, except a few diehard South African racialists in government and to the right of government, regard Apartheid as being abhorrent, immoral and insupportable.." (Dalling, The Star, 16/2/85).

Black Education and Apartheid

There is little doubt that there are certain fundamental features of the educational dispensation in South Africa that contribute substantially to the present crisis. Education in this country is unavoidably and inextricably bound up with the politics of Apartheid, the fundamental of which is self-development through the separation and segregation of the various races on ethnic, cultural and language differences. South African society embraces a wide variety of cultures, but it is controlled by a white minority that prescribes education for all of them. There is thus an intrinsic pattern for conflict, because the black majority believe that they are being educated to fill a particular place in South African society; and not only have they no say in the education provided, they regard the education provided as discriminatory, irrelevant to their aspirations and attuned not to their own needs but to the needs of the dominant white minority. ".... Blacks have always had an educational environment which was attuned not to their needs but to those of the Whites" (Mphahlele, 1983, p.73).

The cry from the universities and the private sector is that the answer to the problems in South Africa lies in the education that each South African receives, whether he is white or black. Only as a homogeneous group can the problems be solved and a stable future be ensured. Every citizen can only bring to the economy and the society, the skills and values that have been inculcated by the education system. At present the education system does not adequately serve even the minority group responsible for formulating the policy. Educationists of all racial

groups are aware, that bold steps in education are urgently needed, but that there can be no change as long as the racial groups are by law required to live and be educated in isolation from one another.

Apartheid has been entrenched in South African society since the National government came to power in 1948. It was re-affirmed in 1977, when the white electorate returned them to power with a greater parliamentary majority than ever before. The prime minister, John Vorster, made it clear, that the government would not deviate from the fundamentals of Apartheid. That meant that in spite of the violent outbreaks of 1976, Verwoerd's Bantu Education Act of 1953, which was based on ideological separation, was to be relentlessly and rigorously put into effect.

Since the education system in South Africa is so intimately bound with the politics of the country, it inevitably reflects the politics of the National Party. The two main goals of the National Party are seen by the black majority as keeping the Whites in the dominant position in South Africa and preserving the identity, language and culture of the Afrikaner people at all costs. The only way by which that can be achieved is by separating the ethnic groups from each other along racial lines.

The National Party is further seen by blacks as being synonymous with the Dutch Reformed Church and Christian National Education, and both are seen as serving the interests of each other.

For the last thirty years, therefore, since Verwoerd's Bantu Education Act, education has been based on isolation and separatism on ideological grounds. Discrimination is firmly established between the various racial groups, and in education manifestly different objectives have been formulated for each. Education based on the Calvinist faith is prescribed, but it is regarded by the Blacks as being neither Christian nor National because they are excluded from formulating educational policy, and have no voice in the political constitutions of the country.

The present educational system, is embedded in the ideology of Apartheid and Christian National Education, which facilitates social control of the majority by the minority through differential access to educational resources and opportunities, through a curriculum which propagates the values of the minority, and through a denial of chance for the majority to participate in decision making about educational policy" (Dhlomo, 1983, p.25).

Apartheid means separate development, but the Blacks see it as a case of being separate and unequal, because there is still an unfair distribution of resources, which denies the black child the opportunity of realizing his true potential. The question of finance and resources is therefore particularly important.

Schlemmer, in his report on teacher upgrading in Bophuthatswana highlighted the provision of finances as one of the main problems of black education. He says that though black education is characterized by a labyrinth of interrelated problems, finance is a key feature:

Black education relative to white education in South Africa is severely under-financed. References are often made to the differences in expenditure per pupil, which in White education is over 15 times as high as Black education. Much more is needed to be spent on black education.

(Schlemmer et al., 1982, p.7).

It would, however, be impossible for this country, except in the very long term, to extend the present expensive schooling pattern to all sections of the community, assuming that the education provided for the White population is accepted as the ideal. Corke, arguing against those who believe that a satisfactory education can be provided for all along the lines of the separate and independent systems for the four population groups, says that

....to achieve four independent systems, each similar in scope to that of the existing white model, would involve increasing total expenditure on education from the present R950 million per annum (R650 million on the white system) to around R4,7000 million per annum.

(Corke, 1978, p.101).

The fiscal system in South Africa could not bear such expenditure. The government therefore now finds itself in a dilemma to which there seems to be no permanent solution. Yet the segregated system is relentlessly maintained, even though the conviction persists among Blacks that despite vast material improvements, segregation implies differences in quality, content and expenditure, and that no matter what else is done, if the dominant white minority is truly committed to educating all the inhabitants of South Africa regardless of colour or race, it must create an educational system free from discrimination that recognizes the intrinsic worth of each individual. Apartheid could have no place in this, for it is seen by many educationists as a recipe for social and economic disaster and the root cause of the present crisis in South African education.

The General Structure of the South African Education System

Within the total system of education in South Africa there are separate sub-systems, or education authorities, all of which are based on race. For Whites there are five departments. There is one for Coloureds, one for Indians and one for Blacks. There are separate departments in the "national states" and in territories given a form of independence by the South African government. The Department of Education and Training controls the education of Blacks outside these areas and offers professional help to the non-independent national states. The independent states budget for their own education systems because there is no special financial assistance for education from the South African government:

The Sub-Systems

The sub-systems are as follows:

The five White sub-systems.

- a) The Department of National Education.
- b) The Transvaal Department of Education.
- c) The Free State Department of Education.
- d) The Cape Department of Education.
- e) The Natal Department of Education.

The Ten Black sub-systems.

- a) The Department of Education and Training outside the National and Independent States. This is for African Education in proclaimed White areas.
- b) The Department of Education and Culture for Gazankulu.
- c) The Department of Education and Culture for Lebowa.
- d) The Department of Education and Culture for KwaZulu.
- e) The Department of Education and Culture for Basotho.

The following are independent territories:

- g) The Department of Education and Culture for Bophuthatswana.
- h) The Department of Education and Culture for Venda.
- i) The Department of Education and Culture for Transkei.
- j) The Department of Education and Culture for Ciskei.

The Coloured sub-system.

- a) The Department of Internal Affairs. This was changed to the Department of Education and Culture in November 1984.

The Indian sub-system.

The Constitution of the Republic of South Africa

Before discussing Christian Nationalism and the educational dispensation in which it is embedded, some consideration must be given to the constitution of the Republic of South Africa, which codifies and enshrines the educational laws of the country. The constitution affirms the biblical principle that God is in complete control of the times and the universe and the circumstances of the people of South Africa. All teachers in South Africa are expected to know the meaning of this section of the constitution of the country.

In article 2 of the constitution the government and the peoples of South Africa confess God as the disposer of the destiny of nations and the history of peoples. He is the God who brought their forefathers from many lands and established them here; and who, they believe, guided their steps through the ages and always providently through many dangers; the God in whose presence they accept their responsibility and whose supreme power and guidance they acknowledge.

Sub-article 2 (1) (a) decrees that education shall have a Christian character, but that the beliefs of the parents and pupils must be respected in respect of religious instruction and religious obligation.

The Education and Training Act of 1979 made this character applicable also to Black education, with exceptions made concerning objections of conscience. Within the context of the constitution and the Education Act it is clear that education is to be Christian.

The intention of this section is expressed in all the laws pertaining to education in South Africa. In particular, the Education Act of 1967 (as amended in 1969) and all the legislation setting up the Department of Education for black education (1979) make provision for education in this country to be Christian National. "Christian" education means that education shall fulfill the requirements of God's Word; "National" means education shall spring from the culture of the people and their Christian way of life.

In theory, therefore, every citizen, and certainly every teacher in the National Education system must acknowledge and accept the constitution. If a teacher were to find himself in conflict with the Christian belief that South Africa acknowledges and confesses its trust in, and its dependence on faith in Almighty God, or that education must have a Christian character, then under the Education Act of 1967, he ought to find other work. The same applies to anybody lacking in loyalty to South Africa and its people, for he could not in that case, do justice to the "national" character of South African education.

Christian Nationalism as an Ideology

It has been noted that the educational ideology in South Africa is Christian National. Ashley, in his paper Educational Ideologies in South Africa, says that the word "ideology" can be used in many different ways. He uses it to refer to a system or set of beliefs held by a particular group or groups in society. These beliefs are related to their interests and carry a strong connotation of action. He defines ideology as

a system of values and beliefs about the purpose of education which is held by a particular group of educators and which will strongly influence practice. It is rooted in moral and political philosophy (ethics) and directs national action.

(Ashley, 1984, p.2)

The most influential educational ideology in South Africa, Christian National Education, is intrinsically the viewpoint of Afrikaner nationalist religion combined with a strong Afrikaner culture and South African nationalism. The origins of this are rooted in history and a long tradition of Dutch and Afrikaner resistance to secular influences in cultural life and education. Ashley refers to this as follows:

It is the view of the Christian National thinker in South Africa, that the Afrikaner nation, indeed all nations, are not arbitrary occurrences in history, but the manifestation of divine purpose in the world. The history of the Afrikaner nation, its cultural traditions and practices and its survival in the future, are

therefore sacred and the worthy and true concerns of all Afrikaners. The central goal in education thus becomes the preservation and transmission of established social and religious patterns and traditions through the inculcation of deep respect for these and the determination to ensure their continued survival.

(Ashley, 1984, pp3/4)

The National Education Act (No 39) of 1967 stipulates that education in South Africa shall have a broad national character. It should therefore find its base in the national situation, where there is a plethora of ethnic groups with wide differences in culture. As a matter of conviction, an education system with a Christian character is promoted, though people with different beliefs are not prevented from conducting their education according to them. But these two aspects are comprehended within the limits of a segregated system; and because of that and the discrimination inherent in the system, it is seen by the black majority as being neither Christian nor National in any real sense of the word..

The future will remain uncertain as long as the Black majority is excluded from participating to the full in the development of the nation. Black academics and representatives of all racial groups believe that there is room in South African society for all people and that the various cultures must be seen as enrichments to each other rather than as threats. The philosophy of Fundamental Pedagogics promotes the idea of a common fatherland, yet South Africa has a national culture that represents only one group of people, who are regarded by black educationists such as Vilakazi as having a supremacist character. Such a volksnasionalisme, which is totally preoccupied with the exclusion of its black inhabitants, is seen by them as devastating to the morale and future economic development of the country.

This negative attitude of Blacks springs from the fact that they have no political voice or representation except in the "homelands". The question immediately arises, therefore, whether Blacks can be regarded as full citizens of the Republic in any true sense of the word. Vilakazi, a prominent black educationist, states the case very clearly:

There is not anywhere else in Africa a politically dominant White minority. Nor is there anywhere else a political system as offensive, or a minority which has an ideology which aims to keep the majority in perpetual subjugation.

(Vilakazi, 1983, p.14)

Christian National Education

Supporters of Fundamental Pedagogics and writers on the subject such as Killian and Pienaar agree that from the earliest times education has been an important and intrinsic part of any culture, and it is therefore activity in which man has always been engaged:

....there is one activity which runs like a golden thread through communities of the various nations and races throughout the world, irrespective of their level of civilisation, their colour or creed. This activity is education.

(Killian and du Plooy, 1980, p.2).

Education and Culture

Because of the great variety of cultures in the world, obviously there must also be a great variety of education systems. No two will be identical, since they are individual and peculiar to the culture form which they spring. They are therefore both general and particular. How are we to apply this to the South African situation, where there is a plethora of cultures and a multiplicity of languages? It is assumed that education systems are for particular cultures in particular times and places, though all have the same pedagogic purpose, which is the education of the child, and each is an integral part of the indigenous culture from which it springs. There must therefore be common principles that they share, though they are particularized by each educational system against the background of its national culture and environment. This is the theoretical basis of the Apartheid system.

Ground motives.

Exponents of Fundamental Pedagogics believe that each culture has ground motives which are peculiar to that culture. They are defined by Stone as: "the spiritual roots of community life" (Stone, 1981, p.103).

These are what determine the character and development of each particular system. They are active in all education systems. They create the individuality of a particular education system and spring from the needs and culture of a particular society. Stone puts it thus: "the way in which each individual community expresses or realizes these possibilities differs considerably because of the differences of ground motives and so-called determining factors operative in each community" (Stone, 1981, p.103).

The ground motives are realized in a very particular way in South Africa, and they have a strong influence on the education system and the policy of Apartheid. In Stone's terms this means that "behind the unique character of every individual system unseen motive powers lie hidden. As these driving forces differ, so do education systems" (Stone, 1981, p102).

They are the driving force of the Afrikaans people; they spring from their deepest convictions about what they believe to be necessary and right. They do not spring merely from the personal beliefs of one person; but they are, as Ashley (1984) observes, historical, and essentially the motives of the whole Afrikaans community. They are the spiritual roots of their community life and they are expressed in their feelings, morals, customs, beliefs and faith.

Cultural Differences and the Education System

Separatism is entrenched in education in South Africa, where the society comprises many cultural groups and peoples. The Apartheid system separates the cultures so that there is no direct interaction between one culture and another. Great pains are taken to ensure diversity and separation. This is a fundamental political preoccupation of the ruling

Afrikaner Nationalist Party. In South Africa schools cannot act on their own initiative because, apart from private schools, they are rigidly controlled by the state. There is no question of having cosmopolitan schools, since political considerations assume overriding importance. The result of this is a cultural bias in favour of Christian Nationalism and the white ruling minority. This has particular relevance in both white and black schools, where the laws prevent a normal social interaction and where Christian National Education is decreed for the community as a whole. Integration would mean that all pupils would be offered the same opportunity to acquire an understanding, of and become part of the wider environment and its diversity. In education in South Africa, the only gestures in that direction are to provide a dual-language programme (English and Afrikaans) and to introduce Black languages to pupils in White schools. Pupils are separated and educated in schools that are a part of their own race and culture. The argument for this put forward by Stone (1981) is that a cosmopolitan school system condemns pupils of different racial groups to failure and loss of dignity. Educationists such as Mphahlele (1983), believe that one of the main causes of the present crisis is that Blacks receive their education in schools of their own cultural grouping, which in reality pay little heed to their own culture. Rather it ensures that they adjust themselves to an allotted position in South African society and are therefore only able to absorb from the white culture, what little is compatible with their own. The Committee of South African Students (COSAS) considers that young Black people are being educated to fulfil their cultural mandate as the white ruling minority perceives it in multi-racial South Africa, and that many problems arise because there is a deep chasm between the black child's educational attainment and his cultural development.

Moreover, the Group Areas Act, the Influx Control and Pass laws and the laws that forbid the mixing of races at all levels of South African society promote diversity rather than integration. There is no choice for the bulk of the population, and the only thing they have in common is their physical occupation of the same country. The fact remains however, that all the peoples in South Africa, regardless of colour race or creed, share a common destiny and are all dependent on one another.

Among the more conservative elements of the Afrikaner population, the feeling, that cultural integration is totally unacceptable is evident, though this is by no means true of the population as a whole. Coetzee is an academic who is out-spoken and provocative on this subject:

It is necessary for us to take all measures to ensure the diversity and separate development of different ethnic groups in future. All factors which may still exist to foster a growing together and an integration into greater unity in this country must be systematically removed, otherwise we shall not avoid a process of fusion....The Whites still have a calling in South Africa. There are millions of underdeveloped people of different ethnic groups in the country who are dependent on the help and guidance of the Whites. But we can only give this, if we see to it ourselves, that we do not descend into the sewer of integration.

(Coetzee, 1983, p.12)

In recent years pressure has been exerted on the government to change. Recent developments indicate a greater integration, evident in the common exercise of sport, in the churches, in labour relations and in other important areas of life.

Black Education - Development and History

The early history of Black education in South Africa is one of missionary enterprise. Various missionary societies, such as The London Missionary Society, brought education to the Black people. Education was to a large extent the prerogative of the select few, since it was geared to the needs of the mission society concerned, rather than those of the community. Education was the handmaiden of the Christian religion, because conversion of the Blacks was the principal objective, and this was to be affected by means of education.

From the beginning of the 20th century until 1954 the control of Black education was divided between the churches, the state, the provincial education departments and the people themselves. Education was therefore very complicated, because of divided control. For example, at the

primary level in Black schools separate syllabuses and text books were used. Funding was never adequate, and because of that, there was a growing desire among Africans to have their schools administered in the same way as those of the Whites. Conditions were far from satisfactory. In 1950, the average school life of the African children who did go to school was only four years. Many never reached Standard 1. Conditions in most of the elementary schools left very much to be desired. Teachers were seriously overloaded, extremely ill-paid, and about 18% of them were unqualified. Many others had very low qualifications. Buildings were inadequate in numbers, often very primitive, and there was a grievous shortage of furniture, books, and other equipment (Horrell, 1968).

When the nationalist government came to power in 1948 they appointed a commission on native education under Dr. W.W.M. Eiselen. The commission reported in 1951, and as a result education for Blacks was put under the control of the central government with the introduction of Verwoerd's Bantu Education Act No 57 of 1953. He was then Minister for Native Affairs. In the House of Assembly in 1953 (Hansard, 17/9/1953) he said that Bantu Education had to be controlled in conformity with the policy of the state. In the government's plan for South Africa, there was to be no place for the Bantu in the European community above the level of certain forms of labour. Within their own areas all doors would be open.

The Bantu Education Department was then set up. This step was taken largely with a view to co-ordinating the development of education for Blacks in South Africa. By 1968 all schools and training colleges for Blacks were controlled by the Bantu Education Department. The Act enabled the government to gear education of the Blacks to what was considered to be their personal, social and economic needs.

In the nearly thirty years of its existence it did little to raise the social and economic standards of the Black communities, and was thus a source of great discord. Bantu education merely formalized the fact that for two centuries the Whites had determined the policy and content of Black education.

A recent document published by the Public Affairs Department of Education and Training makes the following Statement about the aims of Bantu education during the period 1954-1978.

One of the primary aims in those early years of control by Central Government was to bring education to the masses, i.e. to wipe out illiteracy: (Sub A to Standard 2). This aim more or less having been achieved by 1959, the emphasis shifted to higher primary education in the next eight years. From 1967 onwards attention focused on secondary education. The dimensions of technical and adult education came more into the limelight in 1972 and 1975 respectively.

(Schoeman, 1982, p.2)

An autonomous education department was established in the Transkei in 1963 after independence. Since then nine more education departments have been established in the various "national states" (including Bophuthatswana, Venda and Ciskei). These education departments were given responsibility for the construction and maintenance of school buildings, the provision of school furniture, books and other teaching aids, the employment and salaries of teachers and the preparation of their own annual budgets.

In 1978 the name of the Department of Bantu Education (responsible for education of Blacks outside the national states) was changed to the Department of Education and Training. Since then and probably as a result of the Soweto riots, great strides have been made in the material sense. An important step was the Education and Training Act No 90 of 1979, which made considerable changes to the Bantu Education Act of 1953. The effects of these new developments were as follows:

- a) Education in schools maintained, managed, controlled and subsidized by the Department were to continue to have a Christian character, but the religious persuasion of the parents and the pupils was to be respected at all times with regard to religious ceremonies.
- b) The universally accepted educational principle of the mother tongue as the medium of instruction was to be observed. This principle was henceforth to be applied up to and including Standard 2. The wishes of the parents were to be taken into consideration after Standard 2, and also the choice of one of the official languages as the medium of instruction. In the case of the Black pupils, English was almost universally chosen as the medium of instruction.

- c) It was the stated aim and objective of the Department to seek the cooperation of the parents in introducing compulsory school attendance and free tuition, including free school books.
- d) In the future provision of education the ability, aptitude and interest of the pupil and the training needs of the country were to be taken into account. Appropriate guidance was to be given to pupils.
- e) Henceforth there was to be greater coordination with the other departments of education with regard to syllabuses, courses and examination standards. The Matriculation or Senior Certificate or an equivalent examination of either the Department of National Education or the Joint Matriculation Board was to be conducted.
- f) Recognition was to be given to the active involvement of the parents and the communities in the education system through parent-teacher associations, local committees or councils.
- g) School health services were to be introduced in conjunction with the Department of Health

(Schoeman, 1982, p.4)

These were great steps forward. A further advance was that the new regulations based on this Act ensured that the conditions of service of fully qualified Black teachers were identical to those of teachers of other population groups. If fully qualified, they were paid the same salary as White teachers. This in itself was the cause of much discontent, because the minimum acceptable qualification was now three years plus a matriculation certificate.

On 5 May 1980 the Prime Minister, P.W. Botha, made the following very important official statement:

The government pledges itself to the goal of equal education for all population groups but emphasizes that the historical backlog cannot be overcome overnight. My government and I are prepared to accept a programme whereby the goal of equality in education of all population groups can be attained as soon as possible within South Africa's economic means.

(P.W.Botha, 1980)

This was a great step forward, for it was the first positive statement on Black Education in thirty years. As a result there has indeed been a very great expansion of education facilities under state control, which is an indication that the Government intends to honour its commitment. Present expansion includes not only pre-primary secondary education, but also trade and vocational training, higher technical and commercial education, adult education, advanced technical (technikon) and university

education. But there still remains a great deal to be accomplished. The general concern among educationists is that quantitative growth and the provision of facilities must go hand in hand with qualitative improvement in the status, qualifications and professionalism of the black teachers, nearly 80,000 of whom are under-qualified according to the recent legislation. Ever since the promulgation of the Bantu Education Act of 1953 and all the subsequent changes, the attitudes of the Blacks have been essentially the same. They continue to believe that the government gears their education to what it considers to be their personal, social and economic needs without any reference to them. In any consideration of education in South Africa, therefore, the history of Black education cannot be ignored, because the fact remains that education has always been planned by a minority white group for everybody in the country. Blacks have never been given the opportunity to take part in the planning, and it is the opinion of many educationists, that not only has this resulted in a lack of competence and confidence, but it is also a problem that will take many years to overcome, despite the fact that more and more black inspectors and planners are being appointed. "The biggest problem facing Black education in South Africa is the burden of its past. The country may be paying the price for the next 100 years" (Mphahlele, 1983, p. 73).

The Enquiry into Education by the Human Sciences
Research Council

The recommendations of this committee have had a dramatic impact on black education in South Africa. Aspects of the report will be referred to here and under later sections on the salaries and conditions of employment of Black teachers.

Because the turmoil in Black Education since 1976 had nearly brought about a total collapse of the system, the Prime Minister, for the first time in the history of South Africa, committed the government to the provision of equal education for all, after the first qualitative

assessment of the South African education system in thirty years. In June 1980, subsequent to the proclamation, the cabinet asked the Human Sciences Research Council to conduct a thorough investigation of all aspects of education in South Africa.

The request was as follow:

Your Council, in co-operation with all interested parties must conduct a scientific and co-ordinated investigation and within 12 months make recommendations to the Cabinet. The investigation must be conducted in the light of, among other things, the present educational situation, the population composition of South African Society and the means that can be made available for education in the national economy. The Investigation must cover all levels of education, i.e. pre-primary, primary, secondary and tertiary.

(H.S.R.C., 1981, p.16).

The request covered very important areas: the realization of the potential of all the inhabitants of South Africa, and recommendations on how the quality of their lives could be improved and also how economic growth could be promoted through a feasible education policy. A second important area concerned the organization, control, structure and financing of education. Recommendations were required on such matters as the machinery for consultation and decision-making in education, as well as the provision of education of the same quality for all population-groups.

In an interim memorandum of 1981, however, the government made it clear that there were certain guiding principles or points of departure for the investigation. These became known as the "non-negotiables". They were mother-tongue education, self-determination, separate schools and separate education departments. The view of many educationists of all racial groups was that these "non-negotiables" served only to entrench the existing Apartheid system in education, since there was no possibility of placing the control of education under one single ministry, which is the most urgent request of the black people. Nevertheless, the investigation was the first sign of internal reform. The composition of the Committee appointed to carry out the investigation represented, for the first time, all the users of the education system, the private sector, and representatives of the black communities. A process of consultation and compromise promoted widely accepted reforms in a key area of national life.

The investigation was carried out under the leadership of Professor de Lange of the Rand Afrikaans University, and eighteen working committees, each dealing with a different aspect of education, were appointed. Recommendations based on research were submitted to the main committee for presentation to the cabinet.

Guiding Principles

The main committee of the Human Sciences Research Council established eleven guiding principles for an education system making provision for community, diversity and fulfilling the individual and group expectations of the whole country. The eleven principles covered such important aspects as equal opportunities in education for every inhabitant, irrespective of race or colour, and it was to afford positive recognition of what was common as well as diverse in the cultural life of all the inhabitants of South Africa.

One important principle was that freedom of choice was to be given to the individual, the parents and organizations in society, and so meet the needs of the individual, the society, the economy and manpower.

Although recognizing that it is a duty of the government of the country to provide a dynamic and vital education for all its pupils, and that it should bear responsibility for its cost and development, in future the individual, the parents, organized society and the private sector would all have a shared responsibility both for the provision of education and for the forging of positive relations between all aspects of it (H.S.R.C., 1981, p.14).

The Response of the Government to the
H.S.R.C. Recommendations

The H.S.R.C. Education Report was released on 8/10/1981 by Dr Gerrit Viljoen, the Minister of National Education. The government took thirteen months to respond to it. The reply was in the form of a White Paper, which appeared on 24/11/1984. The results, though unsatisfactory and disappointing to many, were nevertheless encouraging. First response to it ranged from lukewarm to critical, but there was also real enthusiasm for the new directions that were being opened up for the first time in the history of education in South Africa. "Obviously there are areas in which political factors played a role and other areas which still have to be developed. But in terms of financial and political realities I think a tremendous amount has been achieved. This is not the end of the road" (The Star, November, 1984).

The practical reforms proposed in the White Paper addressed to some extent many of the shortcomings of the education system, even though the government still stood by the so called "non-negotiables" indicated in the interim paper of 1981. Legislation to put the recommendations of the White Paper into effect was introduced in 1984, and at the same time the government referred to the possibility of further future development: "The White Paper is not the final say and reform will be ongoing on the advice of the Council for Education" (The Star 24/11/84).

Although the government accepted the chief recommendations and reform proposals, many educationists considered that changes would be merely cosmetic and that the White Paper merely entrenched separatism. Others were disappointed that the proposals did not go far enough, and dismissed them as a new deal according to the old existing principles. Christian National Education has been left largely intact, even though the reforms which the Government proposed addressed to a greater or lesser extent many of the shortcomings inherent in the system.

Mr Franklin Sonn, president of the Union of Teachers' Associations of South Africa (UTASA), said of the White Paper:

We note with dismay, but not surprise, that the government perpetuates Apartheid in education. It is particularly disturbing that a single Ministry of Education has been rejected. The decision to establish four ministers of education maintains and consolidates the racial basis of education.

(The Star, 24/11/1984)

Hartshorne took a pessimistic view of the government's reaction:

With all its caveats and hedgings, the most important being the first, which has to do with equal opportunities, including equal education for every inhabitant....The slogan is now to be "equal but separate." Whether this holds any real hope for the future is open to very grave doubt.

(The Star, 24/11/1984)

It is proposed here to refer only to those aspects of the investigation and the subsequent government White Paper which have direct relevance to the historical and social background of the status and quality of black teachers.

Demographic Trends

To make reasonable and realistic projections for the future, the providers of education in South Africa must carefully consider the demographic trends that indicate the birth rate, the mortality rate and the increasing mobility of the black population. Such considerations remain imperative whether education becomes multiracial under one ministry or whether education is to be offered on a racially segregated basis as at present. The demand for education in any country should in the first place be judged in the light of demographic trends (H.S.R.C. 1981).

The collection of such data is necessary to project what the future school population is likely to be and to determine the future manpower needs of South Africa. Long-term projections into the distant future on the demographic trends of the African population must constantly take into account the fact that any projections must be unreliable for a variety of reasons. The Human Sciences Research Council (1981) revealed in the report on Demography, Education and Manpower that there were three main reasons why this should be so. These were that reliable figures for the number of births and deaths among Blacks are lacking, the Black population is becoming increasingly urbanized, and immigration figures in recent years have been very uncertain.

The provision of reliable figures is therefore difficult in spite of the research of Auerbach (1977), the Institute of Race Relations (1977) and the H.S.R.C. (1980) itself. This suggests that data on the different population groups of this country must be treated with great circumspection. Demographic data are nevertheless of great importance and relevance, because they provide a perspective on the school-going population and the teacher requirements of the future. Moreover, such information is crucially necessary if the South African government is to attain its stated objective of providing equal opportunity in education for all the inhabitants of the country, because it provides a tool for national policy-making. It is necessary for "investigating the direction in which the system is moving with respect to issues such as enrolment, pass rates, number of teachers and their qualifications and expenditure...." (Roukens de Lange, 1981, p.5).

In 1980 the Human Sciences Research Council published a document: Population Projections for Southern Africa for the Period 1980-2020. The projections (which included the Black states) gave the following projections on the expected increase in population during the next forty years, i.e. until 2020.

Table 1
Projected growth of the population.

Growth	White	Coloured	Asian	Black
Percentage increase	17.05	56.95	55.40	88.96
Annual Growth rate	0.39	1.13	1.11	1.60

Table 2
Projected growth of the population.

Year	Total population	White	Coloured	Asian	Black	All
1980	27.319,980	16.46%	9.29%	2.98%	71.27%	100,00%
2000	38.404,800	13.24%	8.92%	2.83%	75.01%	100,00%
2020	47.304,870	11.13%	8.42%	2.67%	77.78%	100,00%

(H.S.R.C. 1981, p.3)

The percentages clearly indicate that there will be a decrease in the birth rate among Whites, Coloureds and Indians and a very significant increase among Blacks. Because the death rate among Blacks is also declining rapidly, the natural growth of the Black population will be rapid for some time to come. This has very serious implications for the future provision of education for the Black people.

Population Migration

The migration of the population in South Africa is also an important factor which will also affect the provision of education. The mobility of urban Blacks is ever-increasing, and the general relaxation of the influx-control measures will affect the demand for education and influence the siting, the size of schools and the number of teachers required. The H.S.R.C. investigation ascertained that "Population migrations have far-reaching implications for the provision of education facilities. In the past population migrations were not given the necessary consideration when localities and sizes of schools were determined....Population migrations must therefore receive the necessary attention in future planning of education facilities" (H.S.R.C., 1981, p.4).

Teacher Requirements

In spite of the failure of the government in the White Paper on education to come to grips with the cardinal question of ideological separation of the various education systems, it must nevertheless be recognized that education in South Africa has moved into a new phase. Never before has any government gone on record in an official document as saying that its educational policy is the pursuit of the overriding objective of equal opportunities in education and equal standards of education for all the inhabitants of South Africa. This has very wide implications.

The provision of an adequately qualified corps of black teachers, to cope with the present demands brought about by compulsory education and the future demographic expansion of the black population, is the greatest challenge now confronting those responsible for providing education for blacks. This must also be seen against attempts to provide equal education for all population groups, while adhering to the present wastefully expensive schooling pattern of separate education systems, which has been discussed by Corke above.

The number of black teachers needed is affected by various considerations, such as compulsory education, the drop-out rate and the legislation on age restrictions. In recent years various demographic analyses, such as those carried out by Auerbach (1977) and the Human Sciences Research Council (1981) indicate that there is a projected vast increase in the black school-going population. The projections for black and "coloured" pupils taken together indicate that nearly nine million school places will be needed by the year 2000. By the year 2020 the growth-rate will have slowed and the number of places required will be about ten million. Such numbers affect teacher requirements, since many thousands of new teachers will have to be trained to educate them.

It will be obvious that the problem is not merely one of providing adequate education for the black population, but of providing an education that has parity of esteem both in quality and quantity with that of the White population. Educationists agree that it is very doubtful whether parity can be achieved within a mere forty years.

Only a small proportion of black pupils entering school do in fact complete twelve years of schooling in spite of compulsory education introduced in 1981. In 1983 it included two hundred and fifty schools and seventy thousand pupils. Compulsory education affects all pupils who turn eight years of age on or before 31 December of the previous year.

It is expected that this will be extended continually to higher classes from year to year with the full consent and cooperation of the parents. Though the legislation will take time to put fully into effect, it will, when fully effective, aggravate the problem of adequate provision for blacks in the coming decades and increase the dilemma of satisfying the need for teachers of high calibre. As Roukens de Lange (1981) in his study carried out at the University of the Witwatersrand for the Urban Foundation, indicated: "Probably the single most important issue in determining the future quality and cost of education is that of the supply of teachers. This is probably best expressed as projections of the pupil-teacher ratio" (Roukens de Lange 1981, p.22).

Table 3

Projections of black pupils 1980-2020 and the number of teachers needed to maintain a particular density (H.S.R.C. 1981)

Year	Primary	Secondary	Total	Pupil density	No of teachers
1980	3.874,963	697,265	4.572,228	47,11	96,474
1985	4.471,705	1.011,013	5.482,718	43,72	122,776
1990	5.032,878	1.389,067	6.421,945	40,34	152,364
1995	5.455,588	1.781,859	7.237,447	36,95	182,871
2000	5.755,020	2.156,748	7.911,768	33,56	214,490
2005	5.939,665	2.483,002	8.422,667	30,17	246,574
2010	6.065,430	2.760,865	8.826,295	26,78	281,353
2015	6.161,496	2.989,694	9.151,190	23,39	321,102
2020	6.214,441	3.161,602	9.376,043	20,00	368,107

Source:

These figures were compiled from information given in the Human Sciences Research Council report on its investigation into education 1981. The figures include the independent Black states. The data are compiled from various estimates and therefore there is a discrepancy between the figures in columns marked by an asterisk.

Table 4

Projections of black pupils 1980-2020 and the number of teachers needed to maintain a particular density (H.S.R.C. 1981)

Year	Primary	Secondary	Total	Pupil density	No of teachers
1980	610,054	128,957	739,011	29,07	25,420
1985	597,047	156,325	753,372	27,93	26,973
1990	590,514	185,355	755,869	26,80	28,620
1995	609,102	221,869	830,971	25,67	31,229
2000	628,158	257,569	885,727	24,53	33,749
2005	619,577	278,361	897,938	23,40	34,701
2010	591,150	284,628	875,778	22,27	34,374
2015	560,865	284,065	844,930	21,13	33,612
2020	537,553	282,513	820,066	20,00	34,062

Source: These figures in these table were compiled from information in the reports the Human Sciences Research Council on its investigation into education 1981. The figures include the independent Black states. The data are compiled from various estimates and therefore there is a discrepancy between the figures in columns marked by an asterisk.

A combination of these two gives the estimated number of pupils and total teacher needs for both population groups

Table 5
Totals of Black and Coloured pupils, and teachers needed
1980-2020 (H.S.R.C. 1981)

	Coloured Pupils Total	Black Pupils Total	Total Pupils	Black teachers Total	Coloured teachers Total	Total teachers
1980	739,011	4.572,228	5.311,239	96,474	25,420	121,894
1985	753,372	5.482,718	6.311,239	122,776	26,973	149,749
1990	775,869	6.421,945	7.197,814	152,364	28,620	180,984
1995	830,971	7.237,447	8.068,418	182,871	31,229	214,100
2000	885,727	7.911,768	8.797,495	214,749	33,749	248,239
2005	897,938	8.422,667	9.340,605	246,574	34,701	280,275
2010	875,778	8.826,295	9.702,073	281,353	34,374	315,727
2015	844,93	9.151,190	10.002,120	321,102	33,612	354,714
2020	820,066	9.376,043	10.196,107	368,107	34,062	402,169

Source: These figures in these table were compiled from information in the reports the Human Sciences Research Council on its investigation into education 1981.

From these tables it will be evident that many thousands of teachers will have to be trained over the next thirty-five years. The position with regard to the Black teachers gives most cause for concern, when the

present provisions for the training of teachers is taken into consideration. The H.S.R.C. De Lange report expressed greatest concern about the Black education system: ".....the present rate at which teachers are being trained for primary and secondary schools is totally inadequate. The quality of the teachers in the Black educational system is also a serious problem" (H.S.R.C. 1981: Vol. 1, p.63).

The numbers of existing White, Asian, Black and Coloured teachers' training colleges in 1980 (according to p.20 of Demography, Education and Manpower 1981:11 (H.S.R.C.) were White 20, Asian 2, Coloured 14, and Black in White areas 7, and Black in the national states 30. The total is 73 colleges.

Appendix Z of Table 13 of the same publication indicates that in 1980 there were only 5,555 Coloured teachers and 14,536 Black teachers in training. The total needed for 1980 indicates 121,984. If by the year 2020 the accepted pupil-teacher density is to be ideally 20:1, the extent of the problem facing South Africa can be appreciated.

Qualifications and Salary

Present Situation

But the teacher problem is further exacerbated. At present (see Table 6) 85% of all the teachers in the Black teaching corps and 66% of all the teachers in the Coloured teaching corps are either unqualified or under-qualified. Quality of provision, as well as lack of resources to meet the demands of the rapidly growing Black school population, contributes to the acute crisis that exists. Black education is now to a considerable extent, in the hands of teachers who are under-qualified and who possess a limited academic and professional training. In 1981 the percentages of qualified and unqualified teachers for the four population groups were as follows:

Table 6
Percentage of unqualified teachers (1981)

Population	Unqualified	Qualified	Total
Whites	3,36%	96,64%	100%
Coloureds	66,14%	43,86%	100%
Blacks	85,00%	15,00%	100%

(Compiled from figures in H.S.R.C. 1981, Vol. 1,p.3)

The poor quality of the present teaching corps, which inadequately serves the needs of the pupils, is an additional factor contributing to the crisis and the present unrest discussed in Section 1. Taunyane, president of the Transvaal United African Teachers Association, stated in an address to the Katlehong Teachers' Association: "It is very sad to listen to our children tell us. "We don't want you to teach us. You are not properly qualified" (TOPS, Regional, Transvaal 1983).

As the government resources are put under strain to produce the number of new teachers needed to meet the demands of the Black population explosion indicated in these tables, the under-qualified group at present in service may tend to be neglected. Only 15 per cent of Black teachers now, possess a matriculation (or Senior Certificate) plus a teacher's diploma. At the higher level, a further example of poor qualifications can be seen in the fact that in 1982 there were 1,569 graduate teachers to serve 1,167 Black secondary schools. This barely represents one graduate per school.

Since 1983 it is required in South Africa that all teachers possess at least M + 3 qualifications (matriculation + 3 years' professional training) to be considered acceptably qualified and to be paid salaries on a non-racial level of parity. This was a sincere attempt to improve the quality of the Black teaching corps, but it has been the cause of much bitterness. The following memorandum in the Transvaal United African Teachers' Association Journal TUATA to the Director-General of the Department of Education and Training is significant:

....the new dispensation which required all teachers to possess at least M + 3 (matriculation plus 3 years training) in order to be considered acceptably qualified and to be paid a reasonable salary:-

By the stroke of a pen thousands of teachers who actually attended departmental teacher training colleges and were certified as duly qualified by the Department were suddenly under-qualified. The vast gap in salary between the standard 8 plus professional training to which over 80% of Black teachers belong has left these Black teachers thoroughly frustrated.

(TUATA. 1983, p. 27)

Salaries

The 80% of teachers who possess only a Standard 8 qualification plus two years' professional training were, until the legislation, in what was called Category a.a. The following revised scale was introduced for all ordinary post teachers in all racial groups on 1 April 1981:

Table 7
Salary scales of teachers and categories

Standard	Years of training	Category	Male salary Scale (Rands)	Female salary Scale (Rands)
8	2(1)	'a'	2616-5502	2070-4566
10(Matric)	2	A	3630-7833	2616-5970
10(Matric)	2	B	4098-8454	2889-7212
10(Matric)	3	C	7833-13,437	6591-11,877
10(Matric)	4	D	9075-14,777	7833-13,437
10(Matric)	5	E	9696-15,777	8454-14,217
10(Matric)	6	F	10,317-16,557	9075-14,997
10(Matric)	7	G	11,097-17,493	9696-15,777

When introducing the above legislation, the government put all those teachers who had Standard 8 plus two years' professional training (i.e. the former so-called 'aa' category teachers) into category 'a' and considered them to be professionally under-qualified. This is the category into which over 80% of the Black teachers fall, and it is the target population of Teacher Opportunity Programmes.

The government, when introducing this policy, also ruled that two years' professional training before matriculation would not be equated with two years' professional training after matriculation. Where they manage to obtain matriculation passes in six acceptable subjects, these teachers are put into Category 'A' because they are considered to have standard 10 (matriculation) and the equivalent of one years' professional training.

Since the legislation was introduced, all teachers of all racial groups have parity of salary from Category C and above (i.e. matriculation + 3 years training).

Van den Berg (1983) has pointed out, that to get from Category A to Category B, Black teachers have to follow a two-year correspondence course through Vista Open University which is specially for Blacks. If these are successfully completed they are awarded a Secondary Teacher's Diploma. At present all primary teachers must take this secondary course to get to category B and be recognized as having matriculation plus two years' professional training.

Van den Berg (1983) suggests that achieving Category B would take four years from Standard 8 at the earliest. The only course then available to enable Black teachers to rise from Category B to Category C (matriculation plus three years' training) is to be accepted at Soshanguve College near Pretoria. The minimum time in which a Black under-qualified teacher could obtain parity of salary with other racial groups would be five years.

Taunyane (1984) has pointed out that at all levels of teaching except the ordinary teaching level into which the vast majority of these teachers fall, the sex gap for salary purposes has been closed.

The Selection and Training of Teachers

The Human Sciences Research Council investigation into education paid particular attention to the education and training of teachers and their selection and conditions of service, and made important recommendations to the South African government. Three aspects were considered:

(1) The selection of teachers, (2) the training of teachers, (3) the conditions of service of teachers.

With regard to the training of teachers, cognizance was taken of the known fact that no other single factor influences to such an extent the quality of education in a country as the quality of the teachers who are trained. With this in mind a recommendation was put to the government that recruitment and selection should be implemented by each education authority as standard practice (H.S.R.C. 1981, p. 180).

With regard to the provision of facilities, the attention of the government was drawn to the urgent need for providing training institutions for teachers which would be both geographically and demographically well-placed in areas where there were great shortages of teachers. In addition, recommendations were made for the elimination of backlogs of facilities, for improving existing facilities and for keeping pace with projected needs.

With regard to the actual education and training of the teachers, the H.S.R.C. recommended that those responsible for educating teachers should be properly qualified and that the qualifications should be evaluated and co-ordinated at national level. Moreover, it was recommended that Standard 10 should be the minimum entry qualification and that training should be of three years' duration. "There is a need for co-ordinated evaluation and recognition of qualifications at National level Standard 10 or an equivalent qualification should be the minimum admission requirement for teacher training....The minimum duration of training should be extended to three years" (H.S.R.C. 1981, p. 182).

Conditions of Service

The Report made recommendations on the conditions of service of the teachers so that they should not only satisfy professional requirements but also that they should be made attractive enough to draw promising young people and keep the present teaching corps happy by making provision for further professional growth and upward mobility. This is one of the principal objectives both of INSET generally and of Teacher Opportunity Programmes in particular. "Conditions of service should satisfy professional requirements. The service should be made attractive enough to draw promising people" (H.S.R.C 1981, p. 184).

In the White Paper of 1983 the government accepted all these recommendations and provided for crucial changes to be made in Black education generally in an attempt to counteract many of the ills in the profession and to improve its quality, to make it more attractive and improve its "image". The government agreed that with particular regard to teachers, all teachers should have a minimum Std. 10 qualification and three years' training, that Black teachers should have a say in education at a local level, and that the teachers' organizations would have a say in education planning.

The White paper further indicated that:

- technikons would be allowed to train teachers in technical subjects;
- a committee would be set up to advise the minister on education structures, on salaries, posts and career structures;
- a body would be drawn from teachers' councils to seek uniformity among teachers of all races;
- The South African Council for Education would advise the Minister for General Education Affairs on school education and teacher training.

(South Africa, White Paper, 23.11:1984)

The Socio-Economic Status of the Teacher

Salary and Home Environment

Educationists in South Africa generally agree that if the present problems in Black education are to be eradicated, then urgent and immediate attention should be given to the socio-economic status and position of teachers. This applies not only to training, academic background, professional development and in-service training, but also the conditions of service under which they work, the remuneration they receive, the status accorded to them in the community and the housing and standard of living that they are able to maintain. Hartshorne made it clear that

education departments have to concern themselves with the whole man, not just economic (sometimes called marginal man): with preparing children (and adults) for living as well as earning a living; with the individual spiritual and social needs as well as their economic future

(Hartshorne, 1978, p. 146)

This implies that there must be greater concern for teachers as people as well as for their professional needs. Greater attention must be paid to what he calls continual enhancement of the quality of living in the social, political and economic spheres.

There is little doubt that the Black teachers have a very poor self-image, and this is borne out by educationists and writers on the subject. The great challenge, therefore, is to give the teachers a new status and self-awareness and to make teaching an attractive and well-paid profession, so that it and the teachers will be held in high esteem by the community.

A contributory factor to the very poor self-image of the ordinary Black teachers generally is that their salaries, working environment and standard of living still compare very badly with those in other professions. The Institute of Race Relations yearbooks indicate that since the last world war there has been a critical shortage of housing for African and Coloured people. This is due both to the natural growth

of the population and the influx from the rural areas. Though the extensive housing programmes have by no means kept pace with the demand, there is in the African and Coloured townships a range of housing from one and two-roomed houses for lower income groups to modern double-storey houses for wealthy and middle-class Blacks and Coloureds. Nevertheless the bulk of the population and this includes most teachers, live in overcrowded conditions. It is difficult under such conditions to maintain dignity and self-respect. Only the more affluent members of the black and coloured communities, therefore, can afford adequate housing. The majority of the teaching profession in these racial groups, because they are very poorly paid, live in sub-standard houses. The exceptions are those who are well-qualified and hold senior positions in the profession.

The following tables show the salary differentials for Coloured and Black teachers and for men and women in June 1984. Teachers have either Standard 8 or Standard 10 plus two years' professional training.

Table 8Present salaries (1984) of Coloured male and female teachers

Level of Education	start	maximum
(Male) Standard 8 +professional	R3 162	R 6 591
(Male) Standard 10 +professional	R5 502	R10 317
(Female) Standard 8 +professional	R2 343	R 5 034
(Female) Standard 10 +professional	R4 098	R 8 454
Differential	R1 755	R 3 420

Source: Department of Education and Training.
Personal communication

Table 9Present salaries (1984) for Male and Female Black Teachers

Level of Education	start	maximum
(Male) Standard 8 + 2 years professional training	R2 616	R5 502
(Male) Standard 10 + 2 years professional training	R3 630	R7 833
Differential	R1 755	R3 420
(Female) Standard 10 + 2 years professional training	R2 616	R5 970
Differential	R 546	R1 404

Source: Department of Education and Training.

Personal communication

It is not merely that there is a lack of teachers, because there are many thousands in commerce and industry who have left the profession because of poor conditions of service. The Government has only closed the gap between qualified Black and White teachers' salaries for all teachers who have at least three years' professional training after standard 10. But most teachers in the primary school have only standard 8 schooling and two years' professional training. Under the recent legislation (1983) they are regarded as under qualified, and this accounts for the disparity in pay. The result of this legislation, while attempting to improve quality, means that many long-service teachers with low qualifications acquired many years ago have discovered that the new official definition

of "quality teacher" has classified them as "under-qualified." It is natural that they are aggrieved to see their status and conditions of service deteriorating, and this has caused many to leave the profession and many others to take part in programmes such as TOPS.

The institute of Planning Research of the University of Port Elizabeth examined the minimum household subsistence level for a Black family of five in September 1984, for the main urban centres of South Africa. Though this is not specific to teachers it gives a clear idea of the teachers' standard of living.

Everyone involved in education will readily accept that it is the teachers' professional duty to strive constantly to upgrade their academic and professional skills, not for their own selfish ends of higher status or salary, however important these may be, but in the long term to produce better-educated pupils who in the next generation will be able to satisfy the manpower needs of South Africa. It is the teachers who can bring about a rebirth in education and help to develop an image of the profession that is a vital and respected one. The education of teachers is a process of progressive professional development, there must be commitment to self improvement and continuous professional growth. The hallmark of a profession is keeping up to date: there must be a steady development of knowledge, skills and attitudes.

Table 10
Household subsistence level for a Black household consisting
of five members

Centre	HSL: Rands per month
Cape Town	R270,41
.....
Port Elizabeth	267,83
.....
East London	263,95
.....
Kimberley	276,51
.....
Durban	261,51
.....
Pretoria	280,25
.....
Johannesburg	289,07
.....
Bloemfontein	260,02
.....
King William's town	253,19
.....
Uitenhage	270,56
.....
Umtata	246,39
.....
Peddi	212,51
.....
Benoni	259,16
.....
Boksburg	260,09
.....
Brakpan	272,09
.....
Germiston	264,24
.....
Springs	272,16
.....
Krugersdorp	275,68
.....
Vaal Triangle	293,77
.....
Brits	250,76
.....
Windhoek	not surveyed

(Potgieter 1983,60)

This implies that the Black and Coloured teachers must also accept responsibility for the fact that they are the crucial element in the total strategy for improving their status, the quality of education and their own professional image. They must learn to make the best of their improving circumstances. They must now, more than ever, adopt what Thembela (1984) calls " a policy of self-reliance, self-development, self-respect, self-discipline and self-confidence" which are fundamental to professional status. Taunyane, president of the Transvaal United African Teachers' Association, told the National Committee of the Teacher Opportunity Programmes that while commendable efforts are at present being made to make quantitative and qualitative improvements in Black education, the Black teachers consider that their problems and frustrations have been overlooked. He agreed that they lack confidence and undoubtedly have many inadequacies and shortcomings, but they do not accept all the blame (TOPS, November 1983). This is also indicated in the TUATA magazine (1983).

Apart from offering these teachers the opportunity to improve their qualifications and thereby earn a better salary, there is little that the programme can do about the fact that many teachers live in socio-economic conditions in which poverty, malnutrition, unstable family lives and intimidation and violence are part of their daily existence in the depressed areas and townships. They know that these conditions have a direct bearing on school performance and attendance and the attitudes of the community to the profession. Moreover, they draw attention to the political and legal disadvantages under which all members of the Black communities, the parents, the teachers and the children labour, such as the pass laws, the Group Areas Act and the influx-control regulations, which directly affect teachers and of course the quality of the teachers in the schools. These disadvantages have over the years caused deep and smouldering resentment which has affected attitudes to schooling and is the cause of many disturbances and turmoil in the schools and the teaching body. The following extract from the Viljoen Commission (1976) which enquired into the penal system in South Africa listed the following factors which have relevance to the environmental circumstances within which teachers have to work.

Education is not compulsory and school....facilities are inadequate. Parents have to work long hours. The result of all this is that youngsters in the townships are idle and without proper supervision. They roam the streets, form gangs....; Many children in the townships are illegitimate offspring of males who were allowed to enter the urban areas.

The mother of an illegitimate child may be a domestic servant in the city, and her child grows up in the townships with perhaps grandparents or other relatives who cannot control the child, who grows up to be a criminal; The gap between White and Black as far as earnings, opportunities for advancement generally are concerned, causes frustration, a breakdown of moral fibre, a cynical and reckless attitude on the part of Blacks.....:

The White man's law courts, and administration generally to which Blacks are subjected, sometimes cause friction. Their lives in White areas are regulated by numerous....regulations which many of them regard as unnecessary. A large number of the Black community will sooner or later spend some time in prison as a result of the contravention of regulations which to the Black man appears petty and technically removes any stigma from prison sentences imposed upon him.....;

Bad social conditions, including the following:

1) Improper housing in the sense of small houses...which have to house big families, resulting in very little privacy for parents or children, the children as a result being forced on to the streets where they roam without proper supervision and where they come into contact with bad company:

2) Very few telephones and too few police stations.....inaccessible roads impede the mobility of police patrolling the townships in vehicles.....;

Monotony of existence leading to abuse of liquor and dagga and other excesses which may lead to crimes such as rape, robbery, assaults, housebreaking and thefts.....

(Viljoen Commission, 1976,p.9)

Influx Control and the Black Teacher

Kane Berman describes influx control as

....imposing residential segregation,adopting policies to limit the number of Africans in the resulting segregated townships, taking steps to prevent even those limited numbers from putting down roots; and implementing measures to reduce the number of Africans in both urban and rural 'White' areas.

(Kane-Berman, 1978, p. 70)

This definition, therefore, associates influx-control with the politics of Apartheid and social engineering, in which stringent controls operate to limit the natural consequences of industrialization, particularly racially integrated areas where Africans would have permanent domicile.

Influx control measures have wide implications for Black teachers. Horrell (1968), discussing difficulties encountered by teachers because of the Revised Bantu Labour Regulations (1965) says:

It was made clear that professional people such as teachers were not exempt from these. Official permits were required if a teacher wished to enter a prescribed (urban) area to take up an appointment. Once there legally, he or she must then apply for a residential permit.

(Horrell, 1968, p.97)

Because Black teachers are subjected to influx control regulations, many problems are created, since the system serves to create an artificial shortage of teachers in certain areas by preventing the free flow of professionals. The stringent legal restrictions on the acquisition of land by the African make it extremely difficult for many teachers to make use of the 99-year lease and the Departmental housing subsidy. These controls add to the resentment and frustrations where a community, pupils, teachers and parents, know that there is an adequately qualified professional teacher who could not move even if he wanted to because he cannot get residential rights without a whole long and complicated procedure necessitating many visits to the Administration Board offices, which more often than not end in a refusal. Discussion with teachers in Katlehong, Alexandra and Sebokeng (1984) revealed that they consider that as professionals they should be able to move freely to any area where their services may be required. Unfortunately this is contrary to the present stringent influx-control regulations of the government. There have been repeated representations to the government and the Department by the Black teachers' organizations on the frustration that this causes, but at present there is no relaxation of the laws. Frankel, discussing the basic dynamics of influx control and the pass laws notes that

since the creation and co-operation of a so called 'stable Black middle class'...there is some support for a system of exemptions whereby selected Blacks of a higher status would be granted full immunity from the influx regulations. In an important move in this direction, it was announced during 1977 that Black civil servants, inspectors of school, principals, vice-principals, and ministers of religion would be granted special permission to bring their families into the urban areas.

(Frankel, 1979, p. 212)

This has indeed taken place, although generally, because of the housing problem, principals, vice-principals and inspectors travel from one township to another to their place of work. At present there seems to be no possibility that in areas other than those to which their passbook entitles them, i.e. their area of domicile. Though not explicitly referring to teachers, West (1984) in his paper on the 1983 statistics of influx control, estimated that 175,701 people were arrested in that year for infringement of the laws. It is a well known fact that from the time of Van Riebeeck, South Africa has had a long history of controls to restrict the free movement of peoples. History is full of examples of confining the Black population behind barriers. Whatever good reasons can be put forward for the harsh and unbending attitude of the authorities in applying influx-control measures, whether this be housing shortages, or overcrowding, the fact remains that the free flow of teachers to areas where their services are urgently needed has a lamentable effect on the quality of Black education. The futility of the stringent enforcement of the influx-control measures is evident in the so-called "camouflage" urbanization that has taken place in Black areas near large towns. Durban has some 500,000 squatters, and similar communities have sprung up round East London, Pretoria, Cape Town and Bloemfontein. Near Cape Town illegal squatting at Crossroads has led to arrests, fines, imprisonment and deportation of large numbers of people. Godsell, who is industrial Relations Consultant for Anglo American, in an article titled South Africa in the year 2000, says "...if every national state took independence, there would be no Black South Africans, and consequently no Black urban South Africans, only foreign migrants and frontier commuters."

(Godsell, 1984, p. 98).

Matriculation Results and the Black Teachers

According to L.M. Taunyane, President of the Transvaal African Teachers Union

Black teachers feel there is a very great tendency to over-emphasize examination results and to apportion blame for poor examination results almost entirely on the teachers concerned without taking everything else into consideration.

(TOPS, National 1983a)

In 1983, there were 72,168 candidates for the matriculation examination. Of these only 7,108 obtained matriculation exemption enabling them to study further and 27,768 who obtained a school-leaving certificate. Presumably these flowed out of the system into industry and commerce. There is generally however, great concern about these lamentably poor examination results in the Black education system. Compared to other racial groups they fare very badly, but the teachers' unions submit that there are many contributory causes of this.

This seems to be borne out by the results of a study carried out by the Department of Education at the University of Natal, on the opinions of Black pupils themselves about the reasons for failure in Matric. They were given as follows: poor teaching, 40%; inadequate facilities and equipment, 24%; their own inability, 23%; poor marking of papers 12%. These results were obtained from 413 pupils from three schools and confirmed by a series of tests. A report in the South African News Summary, No 3, 1984, says:

The Minister of Education and Training indicated that 78% of Black teachers were under-qualified, 68% had not matriculated themselves, and only 3.6% had university degrees. 11,000 teachers (25%) were taking part in upgrading programmes.

(South African News Summary, 1984, p.6)

The poor quality and academic level of the Black teaching force is therefore reflected in poor examination results. Where teachers themselves have not matriculated, getting pupils through matriculation seems an insurmountable difficulty. A further indication of this is that in 1982 the pass rates for the various races were as follows:

95.5% - Whites
 87.5% - Indians
 68.5% - Coloureds
 50% - Blacks.

The preliminary announcement by the Department of Education and Training on 30 December 1983 that only 50.4% of the year's matriculation candidates had passed their examinations (apparently the lowest pass rate since 1962) provoked anger and despair among pupils, parents, teachers and community leaders. This was the third year in succession in which only half the pupils who sat the exams passed. The proportion obtaining matric exemption passes (the standard required for admission to university) remained very low at 11.1%.

The final results, published in February 1984, were even worse. Of the 72,168 matric candidates, only 48% passed (2.5% fewer than the previous year). No more than 9.8% obtained matric exemption. The other successful candidates obtained only school-leaving certificates. Pupils in Soweto have formed a "candidates crisis committee" to take the department to court to contest the results.

Schindler (1984) suggests that the explosion in the number of matric candidates in recent years may itself be one of the reasons for the deteriorating matriculation results. Schindler canvassed the views of a range of educationists and came to the conclusions that teacher morale has declined significantly and that the teachers consider that to blame them alone is unfair and extremely frustrating, when they know that educational and socio-economic conditions are an important contributory factor, largely overlooked by departmental officials when considering the examination results.

Among the educationists interviewed by Schindler were Hartshorne, who thought that Black matriculation would improve only when positive steps were taken to raise the quality of teachers and when "a single ministry of education was introduced and African education taken 'out from the cold' so that Black children would be taught by adequately trained White teachers" (Schindler, 1984a, p.3).

Mphahlele (1983) thought that the examination results were so bad because many of the Black teachers were themselves not qualified at matric level; "the teacher has become the target of abuse from both parents and children since 1976" (Mphahlele, 1983, p. 3).

Schindler (1984) also indicates that the teachers and the whole of the Black community are deeply concerned about the leakage of examination questions which results in examinations having to be written all over again. This was made known to the Director General of the Department of Education and Training in a memorandum (1983) by prominent educationists such as Peteni and Taunyane.

Another reason put forward for the poor examination results is that they are tampered with. According to Schindler (1984) this was suggested by Mr Mark Orkin, a senior lecturer in sociology at the University of Witwatersrand, and Mr Greg Classen, a graduate student there, who analysed the results of African and White students completing their first year of B.A. (social work) degree in 1982. Their study revealed that the pre-matriculation results of these students were indistinguishable, but the matric results of Africans were much worse than those of Whites, while the two groups had similar pass rates. According to Orkin, African students fared better at university than Whites with similar matric results. This achievement by African students occurred despite poor schooling, crowded homes that made study difficult, long journeys to and from university every day, and the fact that English was the African students' second language. Although Orkin and Classen believed that poor schooling could have some effect on the matriculation results, they said that their evidence led them to suspect that there was a downward bias in Africans' reported aggregate matriculation symbols.

The Department of Education and Training denied these assertions. It also made matric scripts available to the Sowetan newspaper on the basis of which it reported that in the last three years there were no cases of results being downgraded. The Sowetan also stated that, far from downgrading the results, the department sometimes substantially increased the marks in certain subjects so as to bring them in line with the standards acceptable to the Joint Matriculation Board.

The following table was compiled from figures supplied by Schoeman (1984), public relations officer for the Department of Education and Training. Those for 1981, 1982 and 1983 exclude the Transkei.

The figures are quoted by Schindler in Topical Briefing No. 4 of The South African Institute of Race Relations , 1984.

Table 11
Matriculation Statistics 1973-1983 for Blacks in South Africa

Year	No. of canditates	Matric exemption	%	School leaving certificates	%	Total passes	%
1973	5 492	1 899	34,6	1 327	24,1	3,226	56,7
1974	6 420	2 087	32,5	1 354	21,1	3 441	53,6
1975	8 445	3 520	41,7	1 880	22,2	5 400	63,9
1976	9 593	3 401	35,5	4 592	47,9	7 995	83,4
1977	11 095	2 963	25,8	4 834	43,6	7 697	69,4
1978	9 804	3 236	33,0	4 232	43,2	7 468	76,2
1979	14 574	4 136	28,4	6 570	45,1	10 705	73,5
1980	29 973	4 714	15,7	11 221	37,4	15 935	53,2
1981	48 571	6 096	12,8	19 894	40,7	25 963	53,5
1982	60 108	6 336	10,5	24 205	40,3	30 541	50,8
1983	72 168	7 108	9,8	27 768	38,5	34 876	48,3

(Schindler, 1984a, p.9)

The Participation of Black Teachers in Planning
and Administration

According to TUATA (1983), one overriding cause of frustration among the Black educationists and teachers is the fact that so few are employed in the planning and administrative positions that matter in the Head and Regional Offices of the Department of Education and Training. This suggests to the Blacks that they are incompetent and therefore ineligible for high level posts in the administration of their own education system. They are aware that in other countries and in the national states Blacks occupy nearly all the posts of the state departments. The thousands of Black teachers within the borders of South Africa, therefore, cannot accept the fact that they are excluded and that their education system is entirely controlled by White officials of the Department of Education and Training. This is borne out by Mphahlele's statement quoted earlier, that the education of Blacks is planned for them by Whites and is not attuned to their needs. The teachers desire an efficient machinery for consultation and decision-making and a much greater involvement in curriculum and syllabus design. According to Hartshorne, this means that the teacher can do an effective job only if

the whole machinery of Education, from Head Office to the inspector and local authorities concerned with the school, exists not for its own purpose, but to enable the teacher to do an effective and creative job of work in his everyday face-to-face contact with children in the teaching situation

(Hartshorne, 1978, p.3)

It seems essential, then, that he should be involved, since he understands the convictions of his community. The Institute of Race Relations indicated in its Topical Briefing (1984) that consensus among a range of educationists is that teacher morale has declined significantly because the malaise at the core of the system is that Black teachers do not believe in what they are doing because they do not approve of the system in which they are working.

Since 1978 enormous funding has gone into the provision of adequate facilities and better schools, and although there has been vast improvement there is still a great deal to be accomplished because the quality gap is still very far from being closed. Not only must attempts be made to restore both the confidence of the teacher in himself, but extensive in-service training must be provided for these teachers to give them the opportunity to develop both professionally and academically and so change the very poor "image" that teachers have of themselves.

According to educationists such as Taunyane (1984), at present many are leaving the teaching profession or are continuing to do their work half-heartedly. They are despondent because they have no say in any educational decisions that affect them and they regard the system as saying old things in new ways, or "plus ça change, plus c'est la même chose." They see no real departure from the policies of Verwoerd, who was the main architect of Apartheid when he was Minister of Native Affairs in 1953. In the House of Assembly he said:

I just want to remind honorable members that if the Native in South Africa today in any kind of school in existence is being taught to expect that he will live his adult life under a policy of equal rights, he is making a big mistake.

(South Africa, Hansard, Vol. 83, 1953, Col. 3586)

Official Attitudes to Black Teachers

The whole history of Bantu Education has been that Blacks were educated for an inferior place in the scheme of things, entirely dependent on the White part of the population. Their past in education has been one of acceptance of the rules and regulations made for them by White officials. There has been no discussion or questioning of what the White educators thought was right and proper for them.

The biggest problem facing Black education in South Africa is the burden of its past... In an overview of education in South Africa one cannot afford to ignore the historical context of the situation. We are talking about an education that has always been planned by the Whites for everybody in the country

(Mphahlele, 1983, p. 74)

According to the Memorandum of the Transvaal United African Teachers' Association to the Director General of the Department of Education and Training in TUATA (1983), a cause of much frustration among Black teachers is the authoritarianism and prescriptive manner which many officers of the Department assume in carrying out their duties. The teachers lack confidence and indeed are very aware of their inadequacies; but they consider that this attitude actively discourages the development of a sense of responsibility in them.

A disturbing aspect is that they begin to regard their job as a means to an end because of their extreme disillusionment. As Kane-Berman points out: "The pay of Black teachers is so low that inevitably some of them see teaching not as a vocation but as a period when they can study through correspondence courses for better paid jobs in industry and commerce" (Kane-Berman, 1978, p. 124).

According to the TUATA report (1983), teachers genuinely feel that although they can benefit greatly by guidance and advice from the experts from the Department of Education and Training they resent being treated like children. Instead of prescription and spoonfeeding, they consider that they should be able to take the initiative in organising teaching situations creatively and resourcefully. At present the department work programme actually prescribes what each teacher shall do during every period throughout the whole year. In this sense it is strictly a prescription of procedures to be followed. A far more sensitive approach could and should be made to promote character formation, academic excellence and broader educational goals in their work. The teachers think that inspectors and departmental staff should seriously consider how they should give teachers the very necessary professional advice and support in such a manner that personal initiative is not destroyed. The policy should be to develop the teachers self-confidence and sense of responsibility.

The Transvaal Union of African Teachers recommends that pressure on teachers to spend most of their time on written daily preparation, a large quantity of written work and a substantial number of tests, should be relaxed. This, of course, is considered to be an accepted and necessary part of teachers work; while lazy or irresponsible teachers should in no way be exonerated, over-emphasis on this side of a teacher's responsibility completely negates their purpose. Corke, writing on Equality in the Teaching Profession, gives a clear indication of this:

Teachers are professional people. Much of what they do is based on specialist knowledge and skills, and within the classroom situation they are required to act on their own discretion. A teacher knows what has to be done in a particular situation and he exercises a personal responsibility in carrying out his tasks. The teacher who places his duty to his pupils and their parents and his adherence to the truth ahead of financial gain, who tries to improve the quality of his work because he genuinely desires to do well, and who does not require the sanctions implicit in a code of ethics to ensure that he exercises his vocation faithfully, is a true professional person. Most teachers act in this responsible way, but in South Africa they are the only body of professional people which does not have the right to organise and discipline themselves

(Corke 1980, p. 7.)

Pre-Service and In-Service Training of Teachers

The in-service provision for Black and Coloured teachers is at present being very carefully scrutinized. There are exhortations from many sectors to the government on the need to effect rapid changes by introducing suitable INSET programmes which, according to Hicks, would offer

the provision of facilities for teachers to acquire additional knowledge and skills, and to have opportunities to review their attitudes and values, in order to enhance their individual and corporate professionalism and to enable them to initiate and respond to educational change

(Hicks, 1983, p. 2)

Hartshorne, writing in the Education Journal Vol 93 on the education and training of Black teachers, puts the case more strongly when he says:

...If a new spirit and approach is to be achieved in education, urgent and immediate attention should be given to the position of the teacher, his academic background, his professional training, his further development during his teaching career, the conditions under which he works, the salary he is paid, the status he has in the society which he serves.

(Hartshorne, 1982, p.12)

According to figures given by UTASA (1983), 75% of the 83,819 teachers now employed by the Department of Education and Training do not possess a matriculation certificate. Dlamlenze, in UTASA magazine, says that the teachers are qualified as follows: 8,730 teachers have Std 6 + a professional teacher's certificate; 10,743 have a Junior Certificate only; 42,775 teachers are in possession of a Junior Certificate plus a professional certificate (Dlamlenze, 1983, p. 7).

In real terms this means that those teachers with Standard 6 have had only one year of secondary schooling and those with Standard 8 have had only three years of secondary schooling. This must be seen against the present shortage of Black teachers and the magnitude of the problem of finding and training over a quarter of a million Black teachers before the end of the century, which must come from the education system itself.

The difficulty immediately arises, however, that the problem of poor quality teachers in Black schools perpetuates itself into the future, because poorly qualified and badly educated teachers produce poorly qualified and poorly educated students; and the result is a vicious cycle which perpetuates mediocrity in the very group whose educational improvement should be the first priority of the government. Niven highlights the problem and stresses the importance of a two-pronged attack on it; i.e. the importance of teacher-training combined with teacher-upgrading programmes of INSET "...the enormous problem of initial training of over a quarter of a million new teachers in the space of somewhat 40 years. The second and in no sense less important is the upgrading of those teachers already in service" (Niven, 1980, p. 51).

Even in the best circumstances, therefore, the effects of reform, within the Black and Coloured school systems can only be considered in the long term, because even soundly-based systems enjoying full support by the community would have little effect before the year 2000. Where the standards have been so eroded by years of neglect, where 80% of all Black teachers are under-qualified, and where there is already an acute shortage of teachers, regeneration and renewal will take much longer.

One of the most important obstacles in the way of providing education of a high quality to South African society is provision of enough teachers who are professionally competent to render service according to the demands of the present school system (H.S.R.C. 1981, p.13:)

Both qualitatively and quantitatively there is a great deal to be done in all these spheres; but the greatest problem to be addressed remains that of the inadequacy of the Black teaching force. If the proposals as set out in the government White Paper are to have any real effect, then this is the first priority. It is on the quality and professional competence of the teacher that success will ultimately depend.

In the midst of all the efforts presently being made to achieve equal opportunities and equal standards it has been repeatedly pointed out and stressed that the quality of the teachers is the crucial factor. Improved conditions of service and physical facilities have a very important part to play but ultimately success will depend on the quality of the teachers and how effectively they do their job in the classroom.

(Hartshorne, 1983, p.5)

Extensive in-service programmes for teachers will have to be instituted, with greater provision for the training of new teachers, to eradicate the present backlog and make provision for the future. The backlog and deterioration in the educational facilities for Blacks, particularly given the differential spending on the various systems, have been and will yet be hard to eradicate. Ashley takes the goal of an open society as a starting-point: "A major challenge is to improve the overall quality of teacher training and so improve the overall quality of the school system." (Ashley, 1983 p.18).

In January 1982 the Department of Education and Training had eight Colleges of Education for the training of teachers which fell under their jurisdiction. By 1982 all pre-Standard 10 courses had been phased out, and in 1983 the following post-Standard 10 courses in line with the new legislation on the basic minimum qualifications were introduced:

- Pre-Primary teacher's diploma;
- Junior or Senior primary teacher's diploma;
- Secondary teacher's diploma (without degree subjects);
- Secondary teacher's diploma (with degree subjects);
- Technical teacher's diploma.

Demographic trends indicate that nearly a quarter of a million Black teachers will be needed in the next twenty years. The Research Unit for Education of System Planning of the University of the Orange Free State has established that "at least 11,500 new teachers a year should be trained for Black schools alone over the coming decades, assuming existing pupil-teacher ratios. Currently only 6000 teachers are being trained" (Spies, p.3 1982)

Educationists such as Mphahlele (1983) have said that in South Africa the in-service education and training of Black teachers has no history. The philosophy of Bantu Education meant that Black teachers were never under any pressure to attend INSET courses. Any courses that were offered were irregular and spasmodic, and there were no incentives, financial gain or accreditation for the teachers. Traditionally, once a teacher had qualified no further in-service training or education was required. A Standard 8 (or Standard 6) qualification plus two years' professional training was considered adequate to sustain them for a lifetime's professional service.

The present crisis in Black education demonstrates that schools cannot wait for an adequate supply of teachers with matriculation and a three-year qualification to be trained. In view of this critical situation priority must be given to the upgrading of the academic knowledge and the professional skills of the 80,000 under-qualified teachers now in service in the Black and Coloured schools. This may not

be achieved solely by programmes of INSET run by the private sector such as TOPS. The government will have to organize courses nationally. The principal objectives of INSET discussed in Chapter I have particular relevance in any programme of INSET because they are all applicable to the South African situation. For example, a primary goal of such INSET should be to put the teachers in a position to obtain matriculation and thus to qualify them in accordance with government policy. This fulfils the aims of legal requirement and of upward mobility. It would raise their status and set them on a professional career in education that would enable them to enjoy the same salary benefits as White teachers. Another aim, no less important, is that of the integration of theory and experience. This would help them in their professional development as teachers. But INSET for the Black teaching force in South Africa will have to go beyond mere academic upgrading which may make better-qualified teachers but must necessarily improve the quality of the teaching force per-se. It must concern itself with the long-term professional and personal development of the teachers, help them to adjust themselves to changing conditions and reduce burn-out.

At the same time as provision of INSET for the teachers, a further priority must be that management and leadership courses should be included to encourage the principals and the hierarchy in the schools to become an active part of INSET and thus improve the total competence of teachers. It must concern itself with academic upgrading, methods of teaching subjects, management and leadership. The desperate need for such INSET programmes was established by the Human Sciences Research Council investigation into education in 1980. Of the eighteen work committees, each dealing with a different aspect of education, one of them investigated the crucially important area of In-service Training. The recommendation on INSET was as follows:

The ideal that must be striven for is that each individual teacher, as a professional person, shall grow in knowledge and teaching skills. Experience can certainly make a contribution but in itself is no guarantee of such professional growth, and further training is, in this respect, desirable if not essential.

(H.S.R.C. 1981, p.114)

INSET for Black and Coloured teachers in this country is at present the subject of both political interest and academic research. It is becoming particularly attractive because, in contrast to conventional pre-service training, INSET offers a means of solving the problems raised by the rapidly-increasing school populations and the appalling shortage of properly qualified-teachers. The main committee of the H.S.R.C. investigation stressed that

without a corps of well-trained and talented teachers any endeavour aimed at a system of education by means of which the potential of the country's inhabitants is to be realized, economic growth promoted, the quality of life of the inhabitants improved and education of equal quality provided for everyone, cannot be successful.

(H.S.R.C. 1981, Vol.3 p.5)

The Present State of Inset for Blacks

Since matriculation (Senior Certificate) plus a two-year training course is not taken as the minimum acceptable qualification, only 14.5% of all Black teachers are adequately qualified. This means that a very large number of unqualified and under qualified teachers are employed. The government, through its Department of Education and Training, has made some attempt to solve the problem by the method described below; but it is too large and the scope of present courses is too small and totally inadequate to deal with it. Since 1980 there has been little improvement in this crucially important area. "In 1980 only 1,434 teachers out of 79,195 were involved in in-service training courses presented at the in-service training centre at Mamelodi near Pretoria, LASTING ONE WEEK" (H.S.R.C. 1981, p. 52).

Present provision for in-service education for Black and Coloured teachers in South Africa is very traditional, inadequate and unsuited to the present needs. Its value to the teachers is therefore dubious. INSET consists principally of refresher courses organized by education departments, inspectors, subjects adviser, and sometimes by the teachers

who really desire to improve their professional competence. It is irrelevant, because the needs of the teachers bear no relation to the courses offered. They have no say in the content, and often there are sanctions and difficulties at the teachers' schools that prevent them from putting any new ideas into practice or influencing other teachers. Henderson and Perry (1981) point out the importance of this:

There is often a mismatch between the "needs" of the teachers and the content of the courses. Even where such courses are seen as useful they have little influence on schools when the course-members return to them.

(Henderson and Perry, 1981, p. 2)

The idea, therefore, in the type of INSET provided is that the teachers should return to their schools as carriers of information and equipped to train others in the methods of certain teaching subjects. In practice this does not happen because, the teachers had no wish to attend the courses in the first place and colleagues who have not been exposed to similar courses. Taunyane supports this view:

A teacher's enthusiasm soon diminishes when he returns to school from one of these courses because he has many commitments and because staff who have never been on courses and have been teaching in the same way for many years are not receptive to new ideas.

(Taunyane, National, 1983b)

One of the complaints levelled at the Department of Education by the Transvaal African Teachers' Union in its memorandum to the Director General on the provision of INSET was:

We are seriously concerned about some of the effects of various in-service courses organized by the Inspectors and the Departments because some teachers attending these seem to spend more time outside the classroom than inside, thus causing pupils to be left untaught for considerable periods.

(TUATA, 1983, p.27)

Discussion with principals in schools and observation have confirmed that these complaints may well be justified. Van den Berg (1983), discussing INSET provision for Black teachers in South Africa, points out two principal inadequacies of the courses provided by the Departments.

First, no support is offered to teachers when they return to the schools although the inspectors and principals are supposed to ensure that "transfer of knowledge" takes place. Secondly, the programmes fail to recognize the professional status of the teachers. No questioning of the modus operandi or presentation of the material is permitted, nor are the problems of individual teachers or schools taken into consideration. Since there is no opportunity for discussion or interaction among course members, there seems little scope for a professional exchange of ideas. A further shortcoming is that the teachers are not permitted to take part in the planning and running of the courses, since that is done by course organizers who have not carried out any needs assessment in the areas or schools from which the teachers come. According to teachers, this is essentially a White model for Black people. Schools are disrupted for a week because only the best teachers in each circuit are sent on these courses.

Within the Coloured community the situation is no better. Only inspectors of education have responsibility for the in-service training of teachers. These courses take the form of short afternoon courses during their ordinary duties. The need for such short courses is determined mainly by the inspector.

The fact that only 9 short courses were offered in 1980, attended by approximately 487 teachers and lecturers from training colleges and schools, reflects on the unsatisfactory situation with regard both to the identification of needs as well as the policy concerning organisation and provision of opportunities for in-service training.

(H.S.R.C. 1981, v.13. p.23)

INSET activity in South Africa, therefore, is unlikely to achieve lasting or significant improvements in Black schools if one regards the present provision by the Departments of Education as a model. There is little doubt that INSET in South Africa lags far behind the rest of the world both in provision and in method. What would be particularly applicable and relevant to South Africa is the recent development in INSET characterized by what might be called "school-based" developments. This was also a request by the teachers' union to the Director General. These developments reflect a dissatisfaction with the so-called "traditional

in-service programmes", which are criticized by them. Such a traditional format of INSET courses is inherently incapable of taking adequate account of the different school contexts in which individuals are working.

A further shortcoming of the Departmental INSET courses is that there is no proper evaluation of the courses to assess their value to the teachers. This is important, because without evaluation there can be no refinement. As Henderson points out,

a further group for whom evaluation has a direct and clear relevance includes those who are charged with the responsibility of organizing in-service training, those who act as tutors to courses, and those who act as consultants to working groups of teachers. They must examine the outcomes of their work.

(Henderson, 1978, p. 46)

The relevance and effectiveness of INSET in South Africa must therefore be examined in the light of the problems, matters of content, organizational setting, questions of delivery and evaluation criteria emphasized in the field INSET in other countries. In-service strategies for INSET in other parts of the world should be made available to politicians, policy-makers and the private sector in South Africa, so that they may in the light of such findings, review their priorities and provide suitable INSET programmes for the vast number of under-qualified teachers in the black teaching corps. Attempts are being made to eradicate these shortcomings in Teacher Opportunity Programmes.

The Role of the Private Sector

Even before the De Lange report, economists and businessmen, supported by such private organizations as the Urban Foundation, repeatedly drew attention to the fact that the present system of education was totally inadequate to serve the needs of South Africa, and that as a result an increasing shortage of skilled manpower would exist for a very long time. Because the system of education (the schools, colleges and universities) is unable to provide sufficiently for the needs of a

swiftly-expanding economy, the present backlog in Black education, which is the result of years of neglect, is now so enormous that the government does not command the financial resources to overcome it alone. The backlog, presents a problem of such magnitude that it can be solved only by vast aid from the private sector. The following statement in the editorial of the house magazine of one multinational supports this:

The burden of previous neglect in Black Education is so heavy that it cannot borne by the Government alone. As presently constituted it has neither the funds, manpower nor the facilities needed to expand and revise every level of education from pre-school to adult where change is needed.

(O'Malley, 1983:3)

The implication of this important statement is that the private sector must seek ways and means of becoming involved in education to satisfy the long-term manpower needs of the country and thus create a stable social economic environment. Hartshorne states the case very candidly and stresses the fact that without a wide participation at all levels in education little will be achieved to provide the economic and manpower needs of the country: "...the question in 1983 is no longer whether the private sector should be involved in the educational training programmes that normally would not be its responsibility" (Hartshorne, 1983, p. 6).

The private sector includes a wide variety of agencies such as professional bodies, the churches, voluntary organizations, teachers' unions and trade unions and, of course, business and industry. It is therefore in a unique position to carry out community projects and educational programmes through the medium of other agencies such as the Urban Foundation , which was incorporated as a non-profit-making company in 1976 with a turnover of 58 million rands. This was raised by donations and all of it is spent on bringing about real change in South Africa through some 200 community-based projects, of which education is an important component.

Charney, in his list of areas in which the private sector could become involved gives the following five areas that have particular relevance to

teacher training and the in-service training of teachers. Points 3 and 4 have particular reference to the Teacher Opportunity Programmes, for in these areas the programme receives vast support from the private sector:

1. Second staff as teachers at technikons to upgrade the qualifications of vocational instructors;
2. work with local teacher-training institutions to upgrade the qualifications of vocational instructors;
3. provide funds for the building of new teacher-training facilities;
4. provide funds and teachers for in-service teacher-training programmes;
5. second staff to work part-time in teacher-training.

(Charney, 1983, p. 38)

O'Malley says that if the private sector is to make an effective impact and contribution to the improvement of the Black education system it will not achieve this simply by improving facilities. By that he means that private money should be spent in developing the quality of the teacher through the provision of in-service courses, rather than by providing material things such as books and equipment. He says that investment should be long-term, because there will be no quick returns and commitment as well as financial help will be necessary. "The serious problems in Black education will not disappear by simply pouring large sums of money into projects of a temporary nature" (O'Malley, 1983, p.10).

The sentiments are supported by Mobil Oil, a multinational firm which takes part in a wide range of educational programmes, in its house magazine Energos:

Educational investments are long-term in character, so returns may not be quick even if they are substantial: patience and commitment are necessary....; As with any other investment, careful planning and judicious management are necessities. Problems in education are not solved merely by throwing money at them.

(O' Malley, 1983, p.3)

The present demand for quality in Black education is stimulated by the interest and concern of foreign shareholders in multinational corporations operating in South Africa. Coupled with this is the work of Dr Leon Sullivan, an American who has made an indelible mark on the question of foreign investments in South Africa. He was the first to formulate a code of fair employment practice for companies operating in South Africa. These are now known as the Sullivan principles. Although a clergyman and a civil rights worker, he ranks as one of the most important advocates of Black rights. Since 1971 he has sat on the board of General Motors Corporation. He took a courageous stand to promote equality and a better way of life for Blacks by advising unconditional disinvestment in South Africa until Apartheid was abolished. He has become the voice of America for companies in South Africa who accept the Sullivan code. In 1980 he visited South Africa to deliver the Hoernle' lecture, in which he said:

While there is still time in the name of justice and in the name of God, accord your non-White population, through the actions of your parliament, your councils, your institutions, your churches and your business, their status as full citizens, with human dignity, and all the rights and opportunities it provides. Do it before it is too late. It is time for South Africa to change with the times.

(Sullivan, 1980, p. 16)

The Sullivan Code is crucially important because companies that abide by it are deeply involved in a wide range of educational programmes designed to improve the quality of Black education. Any threat of disinvestment would disastrously affect the aspirations of a large number of Black teachers who are improving their academic and professional qualifications through programmes that could not continue without the support and funding of such companies. In providing such programmes they become an agent of change. As Gardner points out: "There is no doubt that the private sector involvement in education - through the Urban Foundation and multiple participatory schemes and ventures, is nothing short of formidable. Indeed with tax assistance and other provision to help, the spending by the private sector on 'non-formal' education is now nearly equal to the state allocation of money for education. "

(Gardner, 1984, p. 14).

The TOPS Programme, to be discussed in detail later, is a consequence of these trends.

Chapter 3 : Teacher Opportunity Programmes

The purpose of this chapter is to provide information on the nature of Teacher Opportunity Programmes and its general organization and administration. It will give a brief description of the programme, the agencies concerned, its objectives, the circumstances that contributed to its emergence, the organizational structure and its modus operandi.

The Nature of the Programme

Teacher opportunity Programmes may be regarded as a national teacher upgrading programme. It is "national" in several senses.

1. It directs its efforts at a national problem, which is the professional and academic upgrading of the 80,000 black primary school teachers indentified in Chapter 2.
2. It operates in several areas of the country - the Transvaal, the Eastern Cape, the Western Cape and Natal.
3. It deals with various Departments of Education - the Department of Education and Training, the Department of Education and Culture for people classified as Coloured, and the Department of Education and Culture for the Zulu people.
4. It involves people from all the population groups of the country.
5. It raises its funds by appeal to companies to respond to a matter of national concern.

It has become widely known as TOPS. TOPS is a teacher upgrading programme based on certain researched, discussed and agreed principles that apply to the programme as a whole. This research was carried out by the Human Sciences Research Council (1980) and several TOPS national committee members took part in it. The TOPS approach to the education and training (INSET) of black teachers is to provide opportunities in each of the four regions and thirteen centres, to teachers in the schools within easy travelling distance of the centres. The programme aims its services at those teaching in the upper levels of the primary school, Standards 3, 4 and 5, who themselves have acquired standard 8 and have had two years' professional training. From the outset the focus on the chosen target population was to be kept clear. The minutes of the fourth meeting of the National Committee of the TOPS programme on 8th June 1983 reveal the following decisions:

1. Focus to be kept clear. Target population was to be teachers in higher primary schools who were in possession of Standard 8, plus two years' professional training.
2. In very exceptional circumstances principals of higher primary schools could be enrolled.

(TOPS, National, 1985e)

With this in mind, a typical TOPS centre, consisting of sixty to a hundred students, is based either in a secondary school or in a teachers' training college, where there are adequate facilities and laboratories for "hands on experience" in mathematics, physical science and biology. The student population is drawn from the upper primary schools in the area surrounding the centres. The teachers (the TOPS students) from these schools are expected to follow the Methodology and Academic components and their inspectors, principals, deputy principals and heads of school departments are expected to attend the management and leadership seminars. In this way all in the immediate community are involved, and a concerted impact is brought to bear on the local problem.

The Sponsoring Agencies

It may be said that the sponsoring agency is the entire private sector of industry and commerce. Originally the programme was conceived by the public affairs department of Mobil Oil, South Africa, a large multinational corporation, which is a signatory of the Sullivan Code. The Urban Foundation collaborated with Mobil Oil in the forming and sponsoring of the programme. This organization, which is the representative of the private sector in South Africa, was called into existence in 1977 by Mr Harry Oppenheimer, chairman both of the Urban Foundation and of the Anglo-American conglomerate, and other prominent businessmen, after the 1976 riots.

An important development was the formation by leading businessman of an organization called the Urban Foundation, with the object of improving the quality of life in the cities.

(Oppenheimer, 1983, p. 5)

The first objective of the Urban Foundation is to improve the quality of life, which necessarily includes education. The 1984 Annual Review of the Urban Foundation States that it seeks to fulfil two basic purposes through education: the technical purpose of qualifying future manpower with the skills and knowledge needed to obtain employment, and the social purpose of presenting those values that are essential to the maintenance of a cohesive and productive society. The Urban Foundation believed that one of the ways of attaining these objectives was to support such programmes as TOPS.

TOPS is a unique venture representing the Foundation's participation in the creation of an independent project.

(Lee, 1984b p. 20)

Although the pilot project was to operate initially in eight centres in South Africa, two centres in each of the four regions of Transvaal, the Western Cape, the Eastern Cape and Kwa Zulu, the result of judicious marketing and advertising was that the programme rapidly expanded to thirteen centres all over the country, and the list of American companies supporting the programme grew to embrace the whole of the private sector,

particularly the American companies that were Sullivan signatories and followed the initiative shown by Mobil Oil. The Sullivan principles, have become an effective agent of change in South Africa. Principle No 6 requires for example, that:

each signator of the statement of Principles will proceed immediately to participate in the development of programmes that address the educational needs....Both individual and collective programmes, should be considered, including such activities as literacy, education, business training, direct assistance to local schools, contributions and scholarships.

(Sullivan, 1980, p. 8)

The Historical, Social and Educational Factors that Led
to the Emergence of TOPS Programme

Hofmeyer (1984) notes that till about 1970 the government actively discouraged the involvement of private sector initiatives in Black education, but that since then a more enlightened attitude has developed. Consequently the private sector has been accorded a new role in education, and in non-formal education in particular. From about 1974 onwards, the private sector and leading educationists of all racial groups have consistently drawn attention to the fact that the educational dispensation does not adequately serve the needs of the country. Two important issues were highlighted by Mobil Oil in Energos (1983). These were the failure of the black education system to provide an effective educational base for further education and training in the workplace, and the urgent need to create adequate opportunities and facilities for technical and vocational education. It will be readily accepted that economic growth is adversely affected by the poor supply of skilled manpower emerging from the education system. Hofmeyer and Swart (1984) estimate that 70% of the labour force is employed by the private sector. This labour force can be supplied only by the education system. O'Malley, public affairs manager for Mobil Oil in South Africa, has observed that;

merely educating and training a greater number of people is not the answer - the quality of black education and its end product must be improved. The past has presented South Africa with an inheritance of millions of adults who do not possess a 'basic learning package'.

(O'Malley: 1983: p. 5)

The theory behind O'Malley's statement is that if the free-enterprise system is to survive and grow in South Africa, then the White population alone cannot provide the people of the quality needed to fill the many thousands of management, skilled and semi-skilled positions that must be created each year from now to the end of this century. The developing policy of the private sector, following the lead shown by Mobil Oil, is that other proved and properly evaluated programmes of INSET like TOPS should be expanded nationally through the private sector as a whole. Such a concerted effort will greatly help to improve the quality of education provided and therefore help to ensure a stable future for the country. O'Malley believes that if this does not happen, then private enterprise will be doing remedial tasks in education ad infinitum. "For the society or nation a sound education system helps to create the base of economic social and political development" (Lee, 1984a, p. 4).

The need for such programmes as TOPS was also highlighted in other ways. The research carried out by the Human Sciences Research Council (1981) established beyond all doubt that in addition to the quarter of a million new teachers needed by the end of the century, (see Chapter 2) a serious national problem in education lies in the number of under-qualified teachers in the black education system; and it also identified the upgrading of their qualifications and their professional competence as an area that demanded immediate attention.

The teachers' organizations also confirmed the need for the programme, and the three large organizations, the Natal African Teachers' Union, the Transvaal Union of African Teachers and the Cape Teachers' Professional Association are involved at a national level in TOPS concept, content, modality and execution. Although the smaller unions, the Cape African Teachers' Union and the Peninsular African Teachers Union are not directly involved at a national level, they are represented on the

regional committees. To have included them all on the National Committee would have made it very unwieldy. As it was, there was very wide representation from the whole complex web of society. An attempt was made to embrace all sectors because decisions made with those concerned will always be more acceptable than those taken for them. Hartshorne (1983) refers to the "democratic principle", that is, the participation of the teachers, parents, unions, community leaders and universities in the planning and carrying out of a programme.

Investigation by the Urban Foundation and Mobil Oil in 1982 revealed that very few INSET programmes were being directed at the underqualified teachers working at the upper-primary school level in Standards 3, 4 and 5, yet according to the Human Sciences Research Council Investigation (1981) this was the very population in which the greatest need existed. A policy document on TOPS in 1983 made it clear that if improvements could be effected in this target population, it would lead to real advantages for pupils proceeding to the secondary schools, since better quality teachers would have a significant impact on their future development. The De Lange Report (1983) noted the importance of raising the quality of the teaching corps:

The ideal that must be striven for is that each individual teacher, as a professional person, shall grow in knowledge and teaching skills. Experience can certainly make a contribution, but in itself is no guarantee of such professional growth and further training in this respect is desirable, if not essential.

(H.S.R.C, 1981, p. 13)

The problems of the low morale and poor self-image of the teaching corps, the poor supply of teachers and their unsatisfactory quality, combined with their poor socio-economic status, and the depressed environment of the urban townships, were identified by Schindler (1984b) as important contributory factors in the vicious cycle of poor teaching, the high drop-out rate at the secondary level, the insufficiency of graduates and the abysmal examination results at matriculation level. Several of the members of the TOPS national committee had served on the Human Sciences investigation into education and brought this experience and knowledge to the programme. Add to that fact that, according to representatives of the unions, existing efforts and provision of INSET have very little hope

of reaching significant numbers of teachers in need of professional and academic upgrading. The need for very positive and vital programmes addressing the core problem of quality was thus established. Lee, at a meeting with the Director General and senior officials of the Department of Education and Training, who feared that programmes like TOPS would lead to duplication of effort, pointed out that "there is an almost infinite demand for the provision of in-service upgrading for teachers, and duplication should not be a reason for cutting down on the number of initiatives or projects launched" (Tops, National, 1983f).

Although care was taken to avoid duplication of effort between TOPS and other INSET programmes, the Department of Education and Training submitted that the concept of duplication had two dimensions:

- a) where programmes competed physically for the same group of teachers as an audience; and
 - b) where programmes of basically similar educational purpose were run without co-ordination and co-operation, which therefore implied additional costs for both programmes.
- (TOPS, National, 1983f).

The National Committee of TOPS therefore considered that care had to be taken to avoid duplication of effort between TOPS and other INSET programmes because the knowledge and skilled manpower were too scarce in South Africa to be emasculated by wasteful repetition or by duplication of effort. Hartshorne, a leading member of the TOPS committee suggested that "It is imperative that companies and project agencies pool their knowledge and resources and that before programmes are adopted there is wide-ranging consultation with as many relevant interests as possible". (Hartshorne, 1983, p. 8).

The National Committee of the TOPS programme took great care to ensure that the projected programme should not emerge as an ad hoc response to the problem, without serious consideration of all the priorities and difficulties involved. Hartshorne observed that black education is a highly volatile and sensitive area, and any programmes or projects like TOPS introduced into it might encounter political undergrowth. The first step, therefore, was to form a national committee of experts from the

fields of education, Black education and Coloured education, from the universities, representatives at executive level from the teachers' unions and knowledgeable and committed people from industry.

Before deploying valuable resources, therefore, certain questions were asked by all concerned to attempt to ascertain how relevant, effective and efficient this private sector programme in teacher upgrading would be. It was necessary to ensure that it was likely to be more effective than the courses of INSET already in operation in the departments of education. This meant attempting to provide a programme that was innovative, and approached the basic educational problem in a new and effective way. It had to be a true alternative that was not merely helping the education departments to do more of the same. The object was to develop and refine a programme that the departments could adopt in future for replication on a national scale.

It was therefore regarded as crucially important to ensure the success of the TOPS programme by making it acceptable and legitimate in the eyes of the teachers, the Black community and the departments of education on the one hand, and on the other hand the criteria, principles and priorities in setting up this INSET programme would have to be clearly focused so that it would be seen as a high priority also by agencies other than those funding it. It had also to have a sound theoretical base and an administrative infrastructure that would ensure a high level of professionalism.

The national committee considered that it was essential that the emergent programme should be subjected to continual rigorous evaluation, because only in that way could it be refined while in progress, and ensure that it was efficient, effective and cost-effective. A well-known international consultant in programme evaluation was therefore engaged to set up the machinery of assessment and to train evaluators specially for the TOPS programme.

TOPS accepts the need for formal evaluation of its efforts both for the purposes of improving its services and also to provide evidence to participants, departments, teacher associations and donors that the programme is achieving its goals and objectives. In this regard it

will be necessary (as soon as possible) to develop criteria and standards for evaluation of the programme.

(TOPS, National, 1983b)

General and Particular Aims of TOPS

General aims.

There are three general aims of the TOPS programme. The first is to construct an educational programme model that represents long-range strategic thinking on the part of the private sector. This means a long-term project addressing the serious educational problem of under-qualified black primary-school teachers in a scientific and effective manner, rather than a limited local project carried out ad hoc by a company in isolation. The second general aim of the TOPS programme is to help to improve the quality of Black education. Educationists agree that quality can never be simply a matter of professional and academic qualifications. It is also one of commitment, confidence and competence; and an attempt is made to address these areas in the TOPS model, in the belief that the development of the Black teacher should be comprehensive. Teacher Opportunity Programmes, therefore, tackles the long-term professional and personal development of the teachers and concentrates on academic improvement and innovative teaching methods as well as management and leadership seminars for the higher level hierarchy in the primary schools. The third general aim of TOPS is the long-term objective of helping to prepare Blacks to play a more important part at management level in education, and through education, in skilled and semi-skilled positions in the commercial and industrial life of South Africa. This is linked to the second aim, because that is also to be achieved by raising the standard of Black education. The focus of the programme is therefore, on the development of Black teachers as people and as professionals.

Particular aims.

The following particular aims of Teacher Opportunity Programmes are derived from the general aims. They were derived from definitions of INSET proposed by prominent writers in the field. An analysis revealed six main aims. It is clear that there will be other definitions and aims of INSET peculiar to particular INSET programmes. TOPS is working in a very special area in South Africa for a heterogeneous population, and it therefore includes aims that may not be applicable in other countries or situations. The particular and general aims of Teacher Opportunity Programmes, as indicated here, were formulated with the special situation in South Africa in mind.

1. By integrating experience with theoretical studies to improve those skills of the teachers, while they are in service, which are essential to good professional practice. This is done by offering courses both in general methodology and in the methodology of the teaching subjects.
2. To offer academic courses of study in selected subjects that will enable teachers to become qualified in accordance with government legislation, i.e. to proceed from Standard 8 to Standard 10 (matriculation).
3. To prepare the teachers for upward mobility and promotion, to increase their awareness as professional people, and to teach them the importance of their role in society and in community life.
4. To supply teachers for the system who are adequately qualified in accordance with government legislation and thereby to help to improve the quality of teaching in Black primary schools.
5. To reduce the "burn-out" effect among the primary-school teachers in the target population and to increase their self-confidence.

6. To help the teachers to adjust themselves to changing conditions, and by increasing their knowledge and competence to equip them for new and changed roles in a rapidly-changing society.

Many of these objectives are interrelated. The essential purpose is to offer the opportunity to teachers who teach at the upper-primary school level, Standard 3, 4 and 5 who have only a Junior Certificate (Standard 8) and two years' professional training, to upgrade their qualifications to Standard 10 (matriculation). They will thus raise their status by being recognized as qualified teachers in accordance with state policy and embark on a professional career that will enable them to enjoy the same salary benefits as their equivalents in other race-groups.

The school management and leadership seminars are designed to encourage the principals, and the inspectors in the schools, to take their part in the professional development, academic up-grading and competence of their teachers. Teacher Opportunity Programmes proposes to make a three-pronged attack on this core problem, and through summative and formative evaluation refine the model project so that it is efficient, effective and cost-effective, and a prototype suitable for expansion and replication nationally.

The Organizational Structure of the TOPS Programme

The TOPS programme has a hierarchical structure both at national and regional level. (see Figure 1). The head office is in Johannesburg, and there are regional offices in Cape Town, Port Elizabeth and Durban. The programme operates in thirteen centres in four regions of South Africa: Transvaal, Eastern Cape, Western Cape and Natal. It does not operate in the Orange Free State at present.

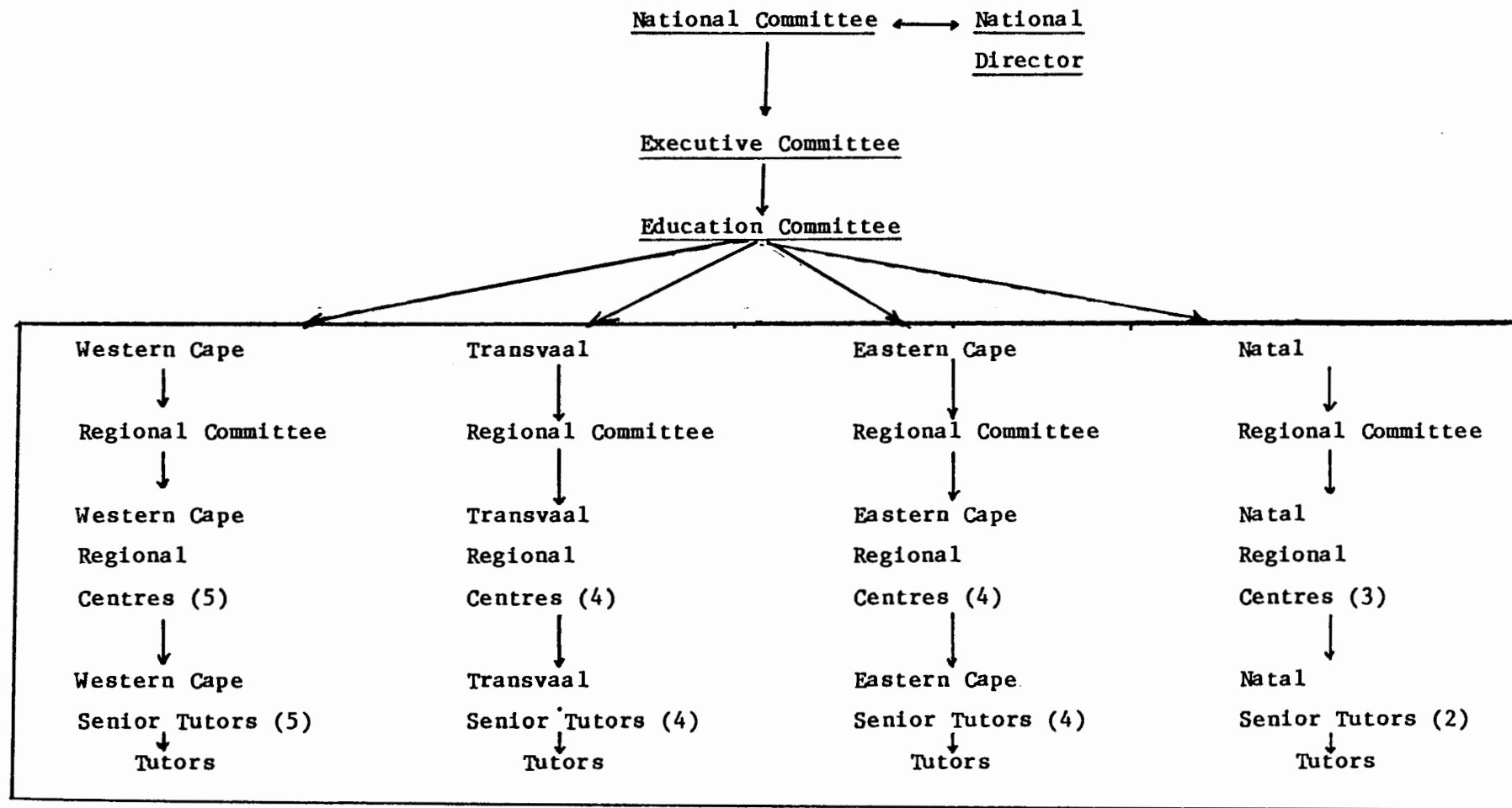


Figure 1:--TOPS organizational structure

The National Committee

The National Committee is responsible for the planning and guidance of the programme through a National Director. It consists of prominent educationists, representatives of the private sector, the Black teachers' unions, the Urban Foundation and the universities. For example, the chairman of TOPS National Committee is the managing director of the Urban Foundation and the vice-chairman is the public affairs manager for Mobil Oil, South Africa. The other members are educationists from the universities, and all the main teacher unions are represented at executive level. The National Committee makes important policy decisions and is generally responsible for co-ordinating the regional efforts. Originally it met fortnightly in Johannesburg and then every two months. In November 1984, it was decided that two sub-committees should be formed, to speed up the decision-making process, and an executive sub-committee and an educational sub-committee were subsequently formed.

These meet regularly and advise the main committee, which now meets twice a year. The National Director sits on both these committees ex officio and co-ordinates all their activities. He administers the programme from head office in Johannesburg and has a full secretarial infrastructure. The National Director is responsible for the general co-ordination of the programme activities in the various regions according to policy guidelines approved by the National Committee. He responds to the need for flexibility to meet local requirements and ensures an exchange of information and experience between regions. He also ensures that the programme is consistently monitored and documented and that appropriate evaluation is carried out.

The main purpose of the post is to direct and control the development of the TOPS programme by achieving short and medium-term results, to determine the feasibility and effectiveness of the programme and ensure that it makes as successful an impact as possible on the general aim of teacher-upgrading in Southern Africa.

The Regional Committee

The chairman of the four regional committees sit on the National Committee and on one of the two sub-committees. As with the National Committee, the Regional Committees are also composed of prominent people and educationists from the universities and public life. Initially each regional committee, Kwa Zulu, Eastern Cape, Western Cape and Transvaal, had a regional director responsible for supervising the regional programme and for the local day-to-day administration of the programme. The post of regional director was later abolished, because it was found to be impossible for part-time people to perform the duties of organizing and co-ordinating widely-scattered regional centres and among different racial groups efficiently. In November 1984 senior tutors of centres were appointed instead, and these were co-opted on to the Regional Committees.

The Modus Operandi of the TOPS Programme

It would have been impossible in the South African situation to run an effective INSET programme like TOPS unless both the sponsoring agency and the education departments concerned were assured that the programme was successful, worthy of their support and able to make some impact on the core problem of under-qualified teachers.

The area of co-operation with education departments was a particularly sensitive one that required very careful negotiation at all times. The departments of education with which the TOPS programme has to negotiate are the Department of Education and Training, which is responsible for the education of Blacks outside the Homelands, the Department of Internal Affairs, which is responsible for the education of people classified as Coloured, and the Department of Education and Culture for the Zulu people in Natal (Kwa Zulu).

The Education Departments rightly see teachers, their training and in-service development, as their area of responsibility, and nothing can be achieved without their support since they have the right to decide whether programmes such as TOPS shall have access to the schools and teachers. Without official sanction and complete acceptance and support, the programme cannot succeed. The National Committee considered that it was of paramount importance however, that the project should preserve its own identity, ethos, autonomy and independence, and this was clearly confirmed by Lee (1984). Hartshorne's view (1983) was that to be seen as an agent of the system could have caused it to be regarded with suspicion by both the users of programme and potential donor companies, and thus jeopardize the chance of its success. Negotiations with the departments of education had therefore to be seen, not as preserving the status quo but as ensuring the provision of an independent and autonomous programme that would be an agent of change to the benefit of all.

The Department of Education and Training investigated the TOPS programme very thoroughly before allowing it to operate and retain its own ethos, identity and *modus operandi*. Negotiation took place at the highest level. As indicated earlier, the main concern of officials of the department was that there might possibly be duplication of effort between what TOPS was trying to achieve and courses being run by the Department and other private sector agencies. Furthermore, it wished to be completely satisfied as to the efficiency of the administrative infrastructure and the materials and the objectives of the programme. After some seven months of negotiation, having finally satisfied itself that the programme was a bona fide professional organization which addressed the core problem of under-qualified teachers without undue duplication of effort, the Department allowed centres to be established within the framework of its schools.

Negotiations with the Department of Internal Affairs (now the Department of Education and Culture), for the education of people classified as Coloured were much more beset with difficulties. TOPS was at first permitted only to introduce the academic component to the target population. The Department assumed that TOPS merely provided funds and support to the Cape Teachers Professional Association, which then ran

courses in the various subjects for the teachers. This system, in fact, worked extremely well, and the infrastructure and support of the teachers' association greatly helped in the development of thriving centres for so-called "Coloured" teachers. It is desirable that the departments while initially allowing the programme to operate independently, should nevertheless be engaged in the development of the programmes so that the best model may be agreed upon and perpetuated. Hartshorne (1983) suggests that hard negotiation may well have to take place with the departments to make them aware of their responsibility to preserve what is good. He suggests that in the unlikely event of an education authority not wishing to associate itself or become engaged, then the private sector as the agent, should set up a maintenance machinery that will ensure the continuation of the programme as long as it is needed.

The TOPS Programme Components

These two components are, an academic component designed to upgrade formal qualifications in English, Afrikaans, Physical Science, Mathematics and Biology, and a didactic component designed to improve competence and practical teaching skills at the primary school level in these subjects. There is also a management component, which is run at week-end seminars. It is designed to improve the management skills of the principals in the schools, so that better use may be made of teachers taking part in the first two components and also give them better opportunities. Thembele president of the Natal African Teachers' Union, set forth the guiding principles of TOPS very clearly at the first meeting constituting the Natal Regional Committee on 26 May 1983:

TOPS has been established to enable teachers with Junior Certificate and two years of training to upgrade their academic qualifications to Matriculation and to provide concurrently courses in teaching methodology to enhance the teachers' professional status.

(TOPS, Regional, 1983a.)

The interesting feature about Teacher Opportunity Programmes is that it goes beyond academic upgrading, though there is no doubt that this is the primary objective of the programme. As indicated under aims, TOPS also concerns itself with the long-term professional and personal development of the teachers. The courses in the methodology of teaching subjects which are offered at weekend seminars and lectures also include aspects of the profession intended to improve their professional competence. A weekend school management and leadership component is also included to encourage the inspectors, principals, deputy principals and heads of departments of schools to take part. The link here is that the principals in the schools are taken away for a weekend to a conference centre. During the weekend they are exposed to the TOPS ethos and their participation and support for the programme and for the teachers attending are encouraged. They are also assured that TOPS operates with the minimum disruption in the schools. The programme is thus a three-pronged attack on the core problem of under-qualified teachers among the target population of the upper primary schools. TOPS is as much concerned with the professional development of the teachers as it is with their upgrading because it is aware that the quality of the teaching force is just as important or even more important than the number of teachers who achieve qualification by passes in the matriculation examinations.

The academic component.

To attain qualified status, the TOPS students must obtain passes at Matriculation level Standard 10, in six subjects. As private candidates they sit what is called the Senior Certificate Examination. The examination system is very complex and a short explanation is therefore necessary

There are nine different examination bodies in South Africa. These are presided over by the Joint Matriculation Board, which keeps watch over standards. TOPS students sit the Matriculation examinations as external candidates. Because two different racial groups are affected, two completely different matriculation examinations are held. To aggravate

this already complex situation, both the Black and Coloured teachers studying with TOPS sit the examinations at different times of year, the Blacks in November and the Coloureds in June. This system is to cease after 1985. Henceforth all external candidates will sit the matriculation examinations as external candidates in November each year. They will, however, still be segregated, and will follow different syllabuses and still sit different Matriculation examinations. The Blacks will sit the examinations of the Department of Education and Training, and the Coloured students will sit the examinations of the Department of Education and Culture (formerly the Department of Internal Affairs until 1984).

Since the two examinations and syllabuses are not uniform, and in addition the so-called "Coloureds" are Afrikaans-speaking, while the Blacks are taught in English, the administration and organization of the programme and the purchasing and issuing of materials for the students are to that extent made more complicated.

The very best tutorial materials that it has been possible to obtain are offered gratis to the students. A panel of evaluators from the University of the Witwatersrand was engaged to study the requirements of the Senior Certificate Examination and to assess all the materials, resources and textbooks. Evaluation has indicated that there are still shortcomings in this area that need to be addressed.

Each week a period of three hours is allocated to each subject. The students pay no fees. The timing of tuition is very important. The programme takes cognizance of the fact that teachers have after-school commitments and extra-curricular activities such as choirs, school clubs, games, library duties and detention. They also have home and family commitments. For the sake of all concerned, the principals, the pupils, the families and these 'student' teachers themselves, classes are generally restricted to one-and-a-half hours and are usually held in the early evening. This allows them to go home before dark and avoid transport difficulties. Lectures therefore begin about 4.30 p.m. and finish at 6 p.m.

If, for example, a student were studying three subjects with TOPS he would have nine hours' tuition a week. With private study and school and family commitments, he could hardly be expected to cope with more than that. At the first meeting the Transvaal Committee of the TOPS programme laid down the following policy, which was adopted at all centres in the country:

Classes at centres would consist of 3 hours per subject per week, split into 1 1/2 hours per session. A student could take a maximum of 9 hours tuition i.e. 3 hours in each subject. It was generally felt that a forty-week year was optimistic, since teachers have examinations and many other commitments. A 30-week year was much more realistic, and even then would be tight. The times of classes are to be left open. Late afternoon and Saturday morning classes were to be desired. In all cases the principal of the school was to be involved.

(TOPS, Regional, Natal, 1983 a)

The methodology component.

The methodology component has not yet been formally introduced into the TOPS programme, though pilot seminars have been conducted. Since Item 10 of the National Committee meeting of June 1983 suggested that the methodology component was ill-defined and nebulous, and therefore problematic, guidelines were laid down on 2 May 1984 so that this component could be carried on effectively, efficiently and economically in the TOPS programme during 1985. Item 10 of the National Committee meeting of 8/6/1983 indicated the importance of the methodology component. It was considered that subject methodology was as important as the academic component, because the whole concept of the programme is not only to enable the students to pass matriculation and thereby gain professional recognition and better salary, but also to develop good professional practice and teaching skills in the classroom. In addition to receiving a package of the prepared materials, it was expected that the students would attend lectures and tutorials and weekend seminars in the subjects they teach. The methodology would begin after the first year. It was expected that the students should have access to laboratory facilities for the science subjects, as it was considered impossible to teach science or its methodology without "hands on" experience in a laboratory. Centres would therefore have to be chosen where there were

laboratory facilities or access to them. The aims considered earlier indicate that through this component the teachers will would

- improve the skills essential to good professional practice;
- increase their competence in the content of the subject that they teach;
- make the best use of the circumstances and thus continue the process of professional growth;
- increase their self awareness as professional people;
- become more confident.

To take courses in the methodology component does not imply that teachers must be taking academic courses in the same subjects. Teachers at the primary level are expected to teach all subjects. The subjects offered by TOPS for matriculation, therefore, do not necessarily correspond to the subjects that students may take in the methodology component. The decisions under Item 5 of the National committee of 13 July 1983 were:

1. Subject Methodology was to be as important as the Academic Component.
2. The University of Cape Town will prepare methodology materials in English, Mathematics, Physical Science and Biology.
3. The original scheme would be adhered to. The courses will start as planned with academic instruction. Subject methodology would be introduced when it had been prepared and received.

(TOPS, National, 1983 d)

At various meetings of the National Committee it was considered that the seminar method had shortcomings, however, because the students were exposed to too much at once and there were no arrangements for follow-up in the schools to see whether the materials were being used effectively, or indeed whether there had been any noticeable change in teaching behaviour. Moreover, the cost of such a method could be prohibitive, since in one centre alone four such week-end conferences would need to be run and there would have to be sufficient funding to do that. Although the teachers might well feel that they were having a break and "getting away from it all" and meeting others with similar problems there would be no evidence to indicate that they would return to their schools as carriers of information.

The question of the best effectuation of the Methodology component was finally resolved by the National Committee of the TOPS programme on 5 March 1985 as follows:

Each region would take responsibility for the implementation of the methodology in the manner that it considered most beneficial to the teachers, taking local needs into consideration.

Each region would be allocated a budgeted sum to do this. An assistant to the National Director would be appointed to oversee and co-ordinate the implementation of the methodology component on a national basis.

(TOPS, National, 1985, b)

The Management Component.

After a meeting between the chairman of the National Committee of TOPS and the Director General of the Department of Education and Training on 6 August 1983, the latter requested that a school management component should be introduced into the TOPS programme aimed at principals and potential principals in Black primary schools.

This proved to be a crucial activity of the TOPS programme for it is the inspectorate and the top hierarchy in the schools and their attitude toward the programme that influence its success. For that reason they were engaged from the early stages of setting up a new TOPS centre in any particular area.

The National Director was instructed by the National Committee to approach an acknowledged expert in educational management. In his report to Committee of 3/10/1983, he noted that he acted accordingly and that an agreement had been reached. The courses would take place at weekends and during holidays so as not to clash with departmental terms.

An essential objective of the Management courses was to bring home to the principals that an important part of their responsibility was the academic and professional upgrading and development of their staff. According to Taunyane

many principals, because they are under-qualified and ill-prepared for the important functions they must carry out, suffer from inferiority complex and do not wish their staff to become better qualified or informed than they are.

(TOPS, National, 1983c)

There is little doubt that the principals enjoyed the courses, but an evaluation carried out in Kwa Zulu revealed that while the delivery of these courses, their organization and content were very good and the physical surroundings in which they were held were excellent they were considered to be very much White models for Black people, particularly as all visual aids and examples referred expressly to white schools. No assessment had been carried out among the different communities to which they were addressed, and the principals had great difficulty in trying to introduce into their schools the strategies they had learned about.

A further development was that the South African company Afrox developed a management course that had been sold to the Department of Education and Training and was gradually being introduced in the schools by the Department. This meant that TOPS would be competing for the same target population. At a meeting of 15/3/1985 it was decided, therefore, by the National Committee to withdraw the management programme temporarily, until the Afrox course had been evaluated. An exception to this was Kwa Zulu Department of Education and Culture. Professor A.J. Thembele, a member of the national committee President of the Teachers' Union and Head of the Department of Educational Planning at the University of Zululand, was asked to develop courses for Black principals in Kwa Zulu through the Natal African Teachers' Union.

The Selection of Tutors and Senior Tutors

Tutors for the TOPS programme are selected not only for their qualifications but also for their experience and their high professional skills and competence. They are expected to regard themselves not merely as disseminators of information but also as educators, whose task it is

to lead others to high professional efficiency by their precept and example. They must be educators who are a constant example of good professional practice.

The modus operandi document on the TOPS programme shows the calibre of the persons sought as TOPS tutors:

Tutors must be people who are committed, involved and enthusiastic. They must be approachable and sympathetic to the needs of Black and Coloured teachers. The programme requires people of high moral character with a sense of commitment for this important work.

It is desirable that the tutorial force has a good mixture of White, Coloured and Black teachers who live within a reasonable distance of the centre. They should be people of the highest possible calibre academically, and have good experience of teaching their subject to matriculation level.

(Murphy, 1983, p. 17)

Tutors are expected to seek out opportunities to show their students how lessons are prepared and how visual aids can be used, and give examples of how to deal with discipline problems and relations with parents and outside agencies. There are two levels of tutor: senior tutor and subject tutor. As was indicated earlier, the senior tutor replaced the position of regional co-ordinator within the programme.

The position of senior tutor is a part-time position. It was seriously thought about and discussed at length in committee before anyone was appointed. It was to be clearly understood by all that a senior tutor was to be much more than simply an administrator, although that was an intrinsic requirement of the position. It was considered desirable that the person appointed should have a good academic background, be a good administrator who could carry through policy laid down by the national and regional committees, and hold a senior position in education such as principal or deputy principal. All the senior tutors in the TOPS programme were in that category, and they ran the centres from the schools in which they were employed. With one exception all were members of the community and racial group concerned. The duties of the senior tutor were to run the TOPS centre in the same manner as a prudent head teacher would run a school.

The Senior Tutor therefore is in a crucially important position since he/she is the hub round which the centres operate. It requires a particular kind of person...some-one who has a good grasp of all the problems of a particular area and is sympathetic to the problems of tutors and students.

(Murphy, 1983, p. 15)

Members of the local teaching community were preferred as senior tutors because it was considered that they would have the best grasp of all the problems of particular areas and could identify particular problems of students.

The Selection of Learners

Because of advertising and exposure in the press and on radio and television and the support of the Black teachers' unions, it may be presumed that every Black primary school teacher knows about the existence of the TOPS programme and what it has to offer them. The demand for places on the TOPS programme far exceeds the number of places available and although there are thirteen centres catering for 937 students, the impact is so small and the problem so great that at the present level of operation it would take at least a century for TOPS alone to eradicate the problem. As has been indicated earlier, the target population for the Teacher Opportunity Programmes, i.e. those teachers in the upper levels of primary schools who are teaching Standards 3, 4 and 5 and who have Standard 8 plus two years' professional qualification, was identified as the greatest area of need, because very little INSET provision is made for them, and it was therefore strictly adhered to in the pilot project of TOPS. As the programme develops, it may be possible to enlarge the target group to include teachers in the Grades and in Standards 1 and 2. To facilitate the selection procedure, each student fills in a comprehensive application form so as to get all relevant details about his situation and to assess his potential and commitment. In addition to completing an evaluation form, which is kept on record, each student is interviewed by the tutors and senior tutors to assess his attitude towards his studies. Two questions seem very

important at this stage. Has the student realistic expectations of the course? Is he able to devote enough time each week to study? It is made clear to the students what is required of them in terms of work and commitment, when they are selected for TOPS courses? A file monitoring progress is kept on each student.

The Monitoring of Teaching

The TOPS programme operates on a great fund of goodwill, and many questions and agencies need delicate handling and procedure. Clear statements are therefore made to everyone concerned, so that everyone understands his function and his terms of reference. Only in that way can the teaching be monitored.

The regions are now given a great deal of autonomy, but they nevertheless operate within the broad guidelines laid down. The National Director and the committee to which he reports are kept fully informed at every stage of the development of every centre. Since the National Director sits on every committee, he is kept au fait by the Regional Chairman, the regional committee and the Senior Tutors. Without this co-operation, support and full agreement, it would be impossible to monitor the programme nation wide.

The attendance, attainment and progress of the students are consistently monitored and records are kept.

Chapter 4 : The Evaluation of Educational Programmes

Crone suggests that educational planners and programme administrators would do well to learn some lessons from the practice of regular check-ups in the health field, because if we do not we shall continue to find ourselves in the unsatisfactory position of trying to work out where our well-thought-out plans went wrong. Quoting from the World Education Reports Magazine of October 1977 she says:

Pity you didn't call us sooner. We might have been able to save it. The project is dead and the corpse is laid out for the experts to dissect. Maybe they can tell us what went wrong. "Here," they say "you should have had an injection of money. Not much. A couple of hundred would have done the job. Here the timing was bad," they go on. "And there you didn't leave enough time for training. Why did you start the second level of classes just as the planting season was about to begin?" And they gather round and shake heads ponderously. "What a pity you didn't call us earlier.

(Crone, 1982, p. 31)

She suggests that this is where evaluation procedures become a necessary tool to enable project staff to carry out periodic check-ups that will tell them how the programme and its various parts are functioning as they proceed.

Historical Development

According to Nevo (1983), until as late as the mid-sixties the only objectives of evaluation were the students, the teachers and the outcomes

of learning. Until then the literature gave little attention to the evaluation of programmes. Since 1965, however, a considerable change of focus is evident. The main writers on evaluation, such as Alkin (1969), Scriven (1967), Stake (1967) and Stufflebeam (1969) have concentrated on the evaluation of educational programmes. The first attempts in programme evaluation used a linear model, and they tried to find out whether a programme had been successful or not. The same standard procedure was followed. First, the objectives were set out, then a base line measure of the situation was taken, then the programme was carried out. Some time after the programme had been in operation, a survey was conducted to try to establish whether there had been any significant changes and to what extent the original objectives had been attained.

This linear model characterized an attempt to evaluate INSET programmes too. Henderson described the state of the art as follows:

Too many evaluations of in-service training have been designed with insufficient attention given to whom they are intended to inform, what information is required and what purposes are to be served. As a result too many evaluation reports have been written for the wrong audience or are delivered at the wrong time and are therefore unusable or unused.

(Henderson, 1978, p. 64)

But gradually more evaluation models became dominant in programme evaluation, which addressed problems of programme improvement and decision-making in planning and executing programmes (Lewy 1977).

Definition of Evaluation

Writers have made many attempts in recent years to clarify the meaning of evaluation. To understand what the term means, some definitions of programme evaluation offered by the principal writers on the subject are indicated here.

The definition offered by Cronbach (1963) which is supported by Scriven (1967) and by Glass (1969) is essentially that evaluation is the gathering of empirical evidence for decision making and for the justification of decision-making policies. According to this, evaluation

comes to examine the limits of consensus in a target population concerning a problem area. A more recent definition by Stufflebeam (1971) indicates very much more precisely that educational evaluation is the process of delineating, obtaining and providing useful information for judging decision alternatives.

This definition clearly sees evaluation as an integral part of planning to be effectively used in the process of decision-making. This is in sharp contrast to Tyler (1950), who conceived evaluation as the process of determining to what extent the educational objectives were actually being attained while a programme was in operation.

Such a range of definitions could be bewildering; but Lewy (TOPS National 1984) makes it clear that if evaluation is to be of any use, it has to be useful to a stakeholder or client who needs answers to particular questions about the educational activity. The definition of evaluation adopted will therefore influence the questions that are asked and the purpose for which the data will be used. Many leading educationists believe that the basic rationale for evaluation is that it provides information for action and contributes to the rationalization of decision-making. It should therefore, be given great consideration when decisions about educational programmes are being made, since this is its major purpose.

Whatever definition is adopted, it is clear that evaluation is a necessary component for refining the planning and execution of a programme and for ensuring that it moves towards attaining its objectives.

The Rationale of Evaluation

Increasing importance has been given to non-formal INSET programmes in South Africa since the H.S.R.C. Report (1981). These programmes will play vital roles in any future development planning and the question "why evaluate" needs to be asked and answered because it is essential that these programmes should be effective. Evaluation is therefore indispensable. It has been indicated that in the past the importance of

+ evaluation tended to be overlooked, but it is now increasingly seen as an integral part of the decision-making process for refining educational programmes while they are in operation. Many educationists have stressed the importance of this and believe that education is not a static or stagnant pool, but is, or should be, vital and dynamic. Educators, according to them, should therefore be constatly seeking new ways to improve educational programmes, indentifying the problem areas and developing and creating new approaches, so that the professional ability of the teachers is improved. Systematic evaluation, they propose, helps to achieve these aims.

+ If educational programmes are to be appropriate and effective and develop into vital and dynamic part of the educational effort in this country as well as in other countries, they must have inherent systems of evaluation as an essential and intrinsic feature of the programme planning and execution. Only if programmes are under constant review, constantly streamlined and refined on the basis of data obtained by systematic monitoring, can they remain dynamic and so maintain their applicability to the needs for which they were designed.

Such continuous monitoring and evaluation provides data, which when analysed should recommend appropriate actions. Judgments based on hard data are hard to refute, because they narrow the gap between the reality and the intention, and enable timely innovations to be introduced to influence the positive results of the programme and increase its effectiveness.

\ All this implies that the main purpose of evaluation is as a diagnostic tool to facilitate decisions about a programme, to improve it, to attain its goals and to direct and monitor the programme as it develops, with a view to identifying its strengths and weaknesses, so that it may be re-directed or refined while in progress.

+ Lewy (1985) suggests that there can be various criteria for evaluating a programme, depending on who wants information and why. He suggests that such criteria will be reflected in the data collected. Nevo (1984) suggests also that there should be clarity about who requires this

information, who is to be served by it and for what purpose it is to be used. He identifies three factors that should be taken into consideration :

1. An evaluation may have a number of clients. Guba and Lincoln (1981) refer to these clients as "stakeholders".
2. Different stakeholders will have different needs or questions to be answered.
3. The planning of an evaluation must clearly identify the needs of these stakeholders.

Formative and Summative Evaluation

It has been indicated that evaluation provides data to judge the effectiveness of an educational activity and for streamlining the process of development. Evaluation can be formative or summative, or both.

Scriven (1967) was the first to suggest that a distinction should be made between formative and summative evaluation, though he was perhaps not the first to recognize this distinction between the two.

Lewy (1985) suggests that there was a formative-summative dichotomy for a full twenty years after these terms had been introduced. In a recently published book Scriven (1980), the originator of the terms, also provided the following definition of formative and summative evaluation:

Formative evaluation.

Formative evaluation includes an assessment of the functioning of different components of the programme such as design, preparation and implementation and learning outcomes at different stages of a programme. It involves continuous monitoring and its use helps to improve the chances that a programme will attain its final objectives. This type of evaluation evaluates not only the final outcome of a programme but also recognizes the problems and improves the process as the programme moves along.

Formative evaluation provides very important information - information about where and what is needed to improve a programme and

how much the target groups are benefiting or will benefit, whether the implementation is meeting its objectives, or if the objectives are still in line with the needs and aspirations of the target group. It also identifies the strengths and weaknesses of the programme.

(Scriven, 1980, p.63)

Summative evaluation.

This is normally done at the end of an extended period of "trying out" or experimenting with a programme to get the model right. It indicates whether the objectives of the programme have been attained by the target population during the period of implementation of the programme. It also indicates the effectiveness (or ineffectiveness) of the programme and how much the target group has achieved or gained during the specified periods of implementation. It is after this stage that the authorities must decide whether the programme should be extended or not. This is the sort of information, therefore, which should be delivered to the top level decision-makers and planners.

(Scriven, 1980, p. 150)

Alkin (1978) analysed forty-two programme evaluation reports and noted the following differences between formative and summative evaluations.

Formative evaluation characteristics

Exploratory
Flexible
Focused on individual programme components
Seek to identify influential variables
Use a great variety of locally developed instruments
Rely on observation and informal data collection devices

Summative evaluation characteristics

Well defined evaluation designs
Unobstructive and unreactive as possible
Comparative
Concerned with a broad range of issues, that is politics, costs, etc
Publicly accepted
Reliable
Reflect concerns of sponsor and decision-maker.

Cronbach (1980) described formative evaluation as:

- (1) having greater impact than summative evaluations
- (2) improves a programme while it is still in operation rather than after it has been operating and has to be demolished to innovate or refine it, and
- (3) provides feedback to teacher and learner and is, therefore, educationally sounder.

Stake (1967) suggests that formative evaluation is cause-seeking, is interested in the broader experiences of programme users, and tends to ignore the effect of a particular programme, while the summative evaluation provides descriptive information, is interested in efficiency statements, and tends to emphasise local effects.

Lewy says that

...there are no basic logical and methodological differences between formative and summative evaluation. Both are intended to examine the worth of a particular entity. Only timing, the audience requesting it, and the way its results are used can indicate whether a study is formative or summative. Moreover, the same study may be viewed by one client as formative and by another client as summative.

(TOPS, National, 1984)

Evaluating the Educational Programme

Since all evaluation efforts have one common aim, the improvement of the programme, the evaluation should attempt to examine the extent of the influence of the educational programme on the teachers, the students, the materials used in the school, and the school milieu. The objective is to establish whether certain components of the programme have the desired impact, that is, produce the desired effects. The evaluation must therefore be systematic and rigorous. The evaluation must be broad enough to focus on the various components and it should attempt to measure the changes that have occurred as a result of the programme. Impact evaluations of this kind are difficult to make but it is generally considered necessary to make them when a programme is at the pilot stage, to establish the extent of its effectiveness, so that it can either be carried out on a larger scale or, if it is not sufficiently effective, then it can be improved or dropped.

If the programme has been found to be effective and is put into effect on a large scale, it will be necessary periodically to check whether the effects of the components of the programme are being sustained. It is only the evaluation findings that will enable the planners and organizers to refine the programme.

Nevo (1983) suggests that almost everything in an educational programme can be an object of evaluation and therefore an evaluation should not be limited to students and teachers. He suggests that the clear identification of the evaluation object is an essential part of the development of any evaluation design. A clear object identification helps to keep the evaluation focused. (Nevo, 1983, p. 120)

The process of evaluation

It is generally considered that one of the hardest tasks in non-formal education in-service programmes is to meet the needs and aspirations of the target population. Bold measures are sometimes needed to animate programmes that are weak, ineffective and inadequate. To inject new life and vitality into them demands fresh thinking. Any evaluation is difficult to design and carry out and the evaluation of education programmes is of course no exception. Complications can arise because of the complexity of the various relations. Evaluation can serve many functions. The process of an evaluation will be governed by the function that it is to serve. Nevo (1983), for example, lists four functions:

- Formative - for improvement
- Summative - for selection, certification, accountability
- Psychological-socio-political - for motivation or to increase awareness
- Administrative - to exercise authority.

Since the ultimate objective of any evaluation is improvement, a process or methodology is a most important factor. Four main questions have to be asked and answered before any evaluation process can be introduced.

- (1) Why evaluate? (2) What is to be evaluated? (3) How to evaluate?
- (4) Whom to evaluate?

The first step is obviously to establish the need and then decide what areas are to be evaluated, before going on to design the instruments for data-collection. The best writers on the subject suggest that the key steps of any evaluation are to identify the type of information relevant to the evaluation, obtain information, and present the information in a manner that can readily be used for decision-making.

In attempting to answer the question "What is the process of doing an evaluation?" Nevo (1983) suggests that it can be answered only when the theoretical perception guiding the evaluation has been clearly identified by the evaluator. Tyler's evaluation model has as its key emphasis Instructional Objectives. According to Nevo, therefore, this model would perceive evaluation as an activity intended to determine whether goals have been achieved. Tyler (1950) recommended the following evaluation process:

- Stating goals in behavioural terms.
- Developing measurement instruments.
- Collecting data.
- Interpreting findings.
- Making recommendations.

Each evaluation model differs from another and there can therefore be little agreement among experts and evaluators on a best method to follow, since no preferred method of evaluation can be recommended for application to every programme. What is clear, however, is that there should be close interaction between the evaluation and the "stakeholders" for identifying evaluation needs and later communicating findings and making suitable recommendations.

Recent writers such as Stake (1976) focus on four areas of investigation:

(1) Goods and their merit. (2) Design and its quality. (3) Implementation and how plans are executed (4) Outcomes and their worth

In addition to identifying clearly the object to be evaluated, Nevo (1983) suggests that the steps to be followed are, first, to decide on the evaluation object and what aspects of it are to be evaluated, and

then to collect the relevant information on these aspects. According to Nevo many evaluators of educational programmes avoid this difficult task by regarding evaluation simply as an information-collection activity.

It seems evident that the essential thing is to have very clear programme objectives in the first place, since that is the first requisite of a successful programme evaluation.

The process of the evaluation must therefore concern itself with appropriateness, effectiveness and efficiency, because only where there are appropriate monitoring procedures and periodic systematic evaluation can there be any assurance that the programme will retain its usefulness.

The Instruments of Evaluation

Having considered the *modus operandi* of data collection and how data may be analysed, let us consider the design of the instruments of evaluation now generally accepted. To carry out an effective evaluation, to communicate findings and to make recommendations to the "stakeholders", it is necessary for the organizers of the programme to establish suitable criteria for judging the effectiveness of the programme, and to construct suitable instruments for the collection of data.

Lewy (1984) suggests that if at all possible, an evaluator should avoid the use of questionnaires by correspondence. Since evaluation methods may be formal or informal, it is possible to avoid postal returns by conducting structured interviews in which questions and answers can be clarified on the spot and no misunderstanding arises. The following instruments are those now generally accepted: written tests, interviews, questionnaires, observation, attitude scales, self-reporting, perception scales and checklists.

Sampling

Since it is hardly feasible to collect data from all possible sources, some sampling may be necessary. Where sampling occurs, Lewy (1984) says that the evaluator must ensure that the data sources are representative of the population, and the analysis procedure will depend on the nature of the data that have been collected. It is important for evaluators to be totally objective and not to attempt to be critical or to form preconceived ideas on the results of the evaluation. This process is supported by Chantrill (1982), who says that the evaluators, and for that matter the evaluated, should avoid forming preconceived ideas on what the evaluation will be.

Methods of Enquiry in Evaluation

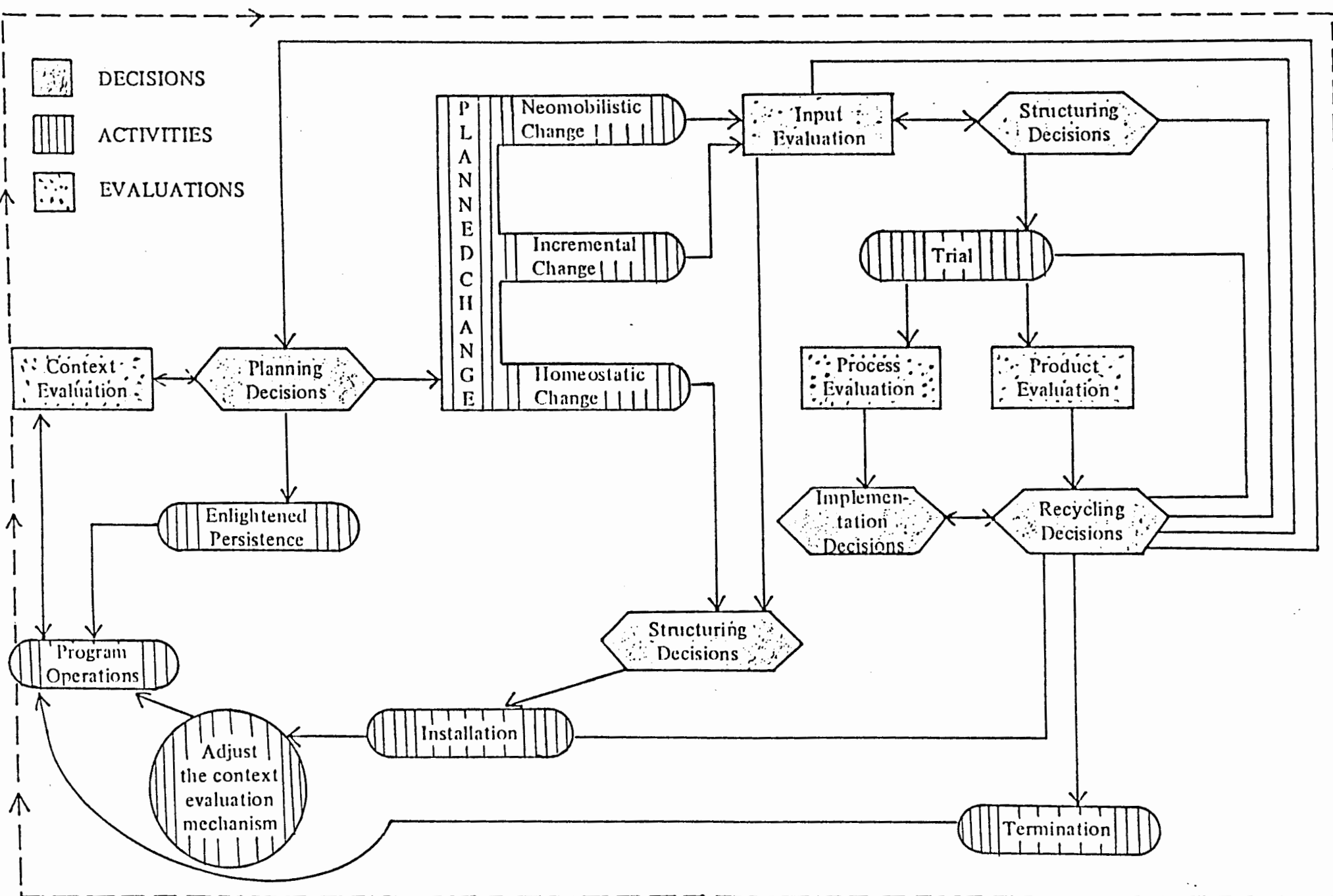
There are several widely-used "evaluation models" that have been propounded in recent years as the most suitable method of effectively carrying out an educational evaluation. Some of the most widely-known ones will be briefly sketched here.

Stufflebeam's CIPP model.

Stufflebeam et alia (1971) describe four types of evaluation activities to facilitate four types of decisions:

1. Context evaluation - planning decisions
2. Input evaluation - structuring decisions
3. Process evaluation - implementing decisions
4. Product evaluation - recycling decisions

The initials make up the acronym CIPP, which is taken as the name of the model (see fig 2)



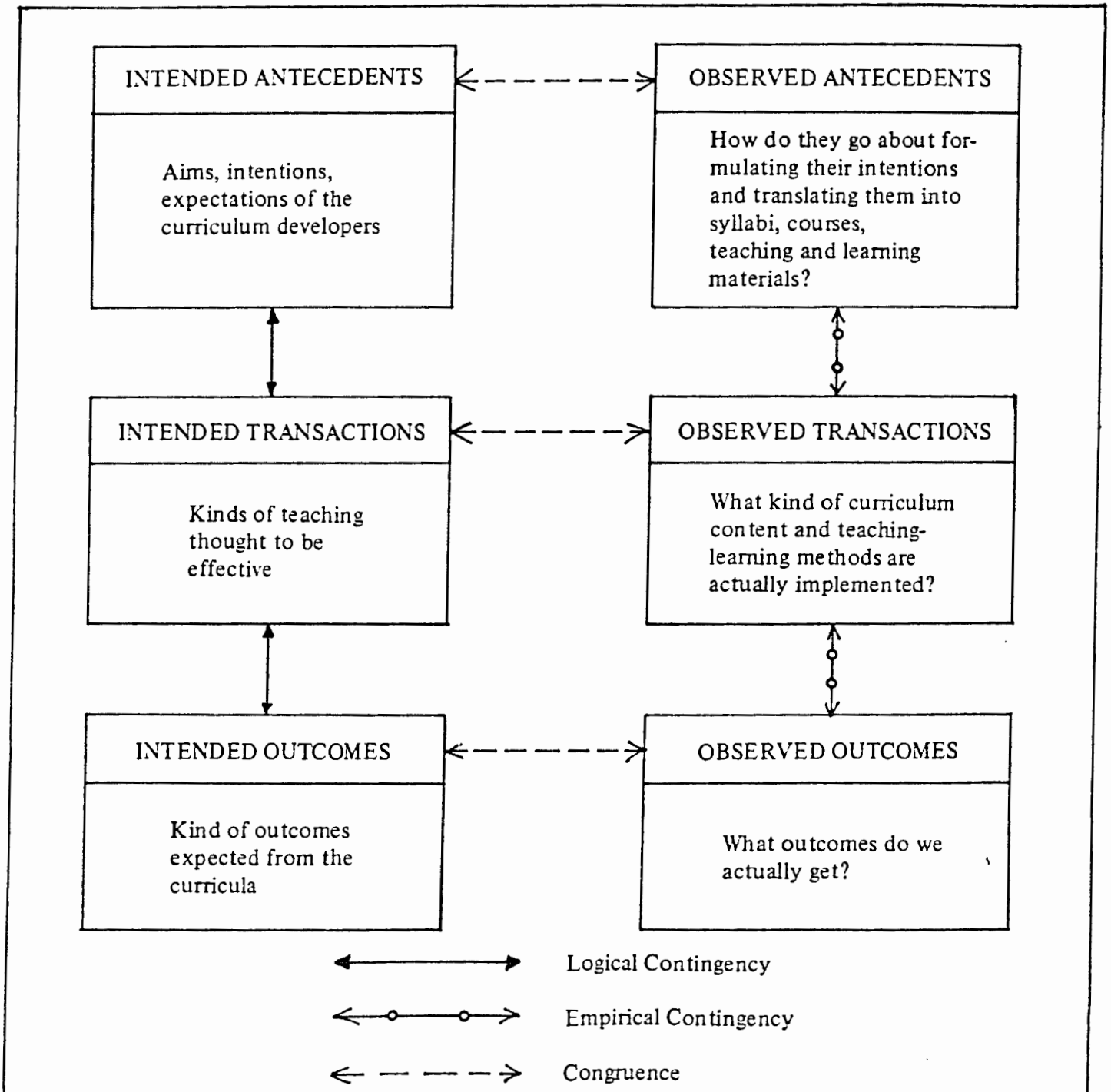


Figure 3. Countenance Model (Stake, 1967)

The Countenance model.

Stake (1967) proposed a model, which became known by the name the Countenance Model, due to the fact that the model was presented in an article which carried the title The Countenance of Educational Evaluation. Figure 3 contains its basic scheme.

The Countenance model distinguishes three targets of evaluation: antecedents, transactions, outcomes. Antecedents contain aims, intentions and expectations of the programme developers. Antecedents in Stakes's model refer to targets, which in the CIPP model are referred to as context and input evaluation types. The second target of evaluation is transactions, which correspond to what Stufflebeam et al. named Process target. Finally, the third target is outcomes (named Product by Stufflebeam).

Stake recommends the use of four different data types: description of intents, observations, standards and judgements. The model also specifies three types of inferential relationships between groups of data: figures 2 and 3.

1. Logical contingency, which refers to the logical feasibility that the attainment of certain aims can be attained by operating certain transactions, or in other words that certain learning strategies may facilitate the acquisition of intended outcomes.
2. Empirical contingency, while the logical contingency refers to the feasibility of certain relations, the empirical contingency refers to the actual relations observed between clusters of variables.
3. Congruence, which refers to the realization of programme intents in the domains of antecedents as well as in the domains of transactions and outcomes.

The illuminative model.

An interesting and recently widely-used model of evaluation developed by two British scholars became known as the Illuminative Evaluation Model (Parlett and Hamilton 1972). This model suggests the use of quantitative and qualitative data summary with the purpose of illuminating

various aspects of a programme being examined. Thus, the evaluator using this model will combine statistics derived from questionnaire data with observation and interview records. The findings derived by this method describe programme features, explain the significance of various programme components and examine the relationships between programme components, and in this way it helps all parties interested in a particular programme to understand the dynamics of the programme operation better. The present study uses the Illuminative Evaluation Model to a large extent.

The models described here by no means represent all the models used in evaluation. House (1980) presents a scheme that tries to put various evaluation models into a systematic taxonomic arrangement. It can be seen that evaluation models have different emphases, purposes, key activities, risks and pay-off. They also differ in the view-points and in the type of outside knowledge required. It is perhaps these different emphases that lead Nevo (1983) to suggest that it is possible to "lose one's way" among the various evaluation models. Attempts to categorize and classify them in any way leads to the problem that important questions might easily be ignored. Nevo's view is supported by Henderson (1978) who, while recognizing that evaluation is an indispensable component of any educational activity, points out that it is so variously defined because each evaluation is in itself unique. Hence the variety of definitions.

Both these view-points are included in Lewy's assertion (1984) that in any educational evaluation, the best approach is that which best answers the evaluation questions. There can be no umbrella method that is all things to all evaluators, since each evaluation is in itself unique. Those responsible for the evaluation, must look carefully at the components that make up the whole programme. At the very beginning of the programme a decision must be made about what kind of data will be most useful to an understanding of how the various components of the programme are functioning, and mechanisms must be set up for gathering that information; therefore very early in the programme everyone concerned with it, whether a committee, sponsors, donors, co-ordinators or other agencies, need to look ahead and make preparations for judging

the possible impact or outcome. All these agencies will have various things that they want to know about the impact. Therefore it is important at the outset for all concerned to decide and accept what the criteria for "success" should be. It is necessary to know how well the project worked and what kind of impact it had on the lives of the participants that it was designed to serve.

Chantrill (1983) suggests that the reason for making decisions about the final evaluation at the beginning of the project is that only if the original situation can be compared with the situation at the end of the programme when the evaluation is carried out will there be a frame of reference against which to compare the degree of change. It is clear, then, that if the thinking about the final evaluation is left till the programme is about to end it will be difficult to guess accurately what the situation was at the beginning.

The Evaluator

It is generally agreed that all concerned with a programme should play some part in designing the final evaluation. This protects staff and programme participants against feeling threatened by outsiders. If all participants and tutors or senior tutors, supervisors, administrators and co-ordinators and those who provide the funding understand and have agreed on the criteria for judging success and the process by which it will be carried out, it is more likely that the final evaluation will be handled in a spirit of co-operation and the results taken seriously by all those who have a stake in the programme. There will be many questions that feedback procedures can help the programme staff to answer. The nature of those questions will depend, however, on what was decided at the outset as the most critical components. Lewy (1984) suggests that it is not possible to answer everything. Evaluation costs money and takes time. If an evaluator tries to answer all the questions, it might cause members of staff to spend much of their time collecting data instead of running the programme. Nevertheless, evaluation remains

a crucially important component of any INSET programme. Lewy believes that 12% to 20% of the budget should be allocated to adequate evaluation, and that experienced and qualified evaluators should be employed to carry out the task. He also suggests that an evaluation should best be taken on by a team rather than a single person. This team should have access to records, reports and other documentation, though it would also gather its own primary data through questionnaires, checklists, observation and interview etc. He makes it clear that an evaluator should be a professionally-trained and experienced person. His view is strongly supported by Nevo who suggests:

To be a competent and trustworthy evaluator one needs to have a combination of a wide variety of characteristics. These include technical competence in the area of measurement and research methods, understanding the social context and the substance of the evaluation object, human relation skills, personal integrity, and objectivity as well as characteristics related to organizational authority and responsibility.

(Nevo, 1983, p.123)

Finding such a paragon of virtue who possesses all these qualifications may be difficult; and Nevo supports Lewy again (1984) by suggesting that the answer may lie in arranging for a team to conduct the evaluation, rather than a single person. Lewy (1984) has suggested that an internal evaluator of a project (project co-ordinator) because he is employed by the project and reports direct to its management, is perhaps not the best person to carry out an evaluation, because he has not the same degree of independence as a person not directly employed by the project, and is not directly answerable to the management of it. This distinction between an internal and external evaluation has also been made both by Scriven (1967) and Stufflebeam et alia (1971). The question of whether an evaluation should be carried out by an insider or an outsider is also sometimes a delicate one. It is the opinion of Chantrill (1982) and Nevo (1984) that the great advantage of evaluations made by outsiders is that of greater objectivity. The advantage of the evaluation carried out by an insider might mean, however, that there is a much greater acceptance of the findings and recommendations. It may be that an evaluation could be conducted by an outsider for summative evaluations. A team effort comprising both insiders and outsiders is a distinct possibility. This

effectively comprehends the complex nature of most evaluations, because each member of the team is allocated responsibility for a different area of the evaluation. Because evaluations are invariably sensitive matters, it may be difficult to get co-operation, and a great deal of tact and understanding may have to be used.

Nevo (1984) draws a distinction between a "professional" and an "amateur evaluator, and he quotes Scriven (1967) in support of this. An amateur evaluator, according to Nevo, is described as someone whose professional training is not in evaluation and is only partially involved in it. By contrast a professional evaluator is one with extensive training in evaluation and is solely concerned with it.

Research and Evaluation Studies of INSET Programmes

Since the chief topic of this study is the evaluation of a particular INSET project, a survey of research and evaluation in INSET projects will complement this chapter. Research is a crucial component in INSET programmes for systematising and refining them. Where it is efficiently used it can be an effective procedure for the strengthening of INSET programmes to make them more effective, more efficient and more cost-effective. Evaluation, therefore, is an important dimension leading to educational development. The distinction between research and evaluation is not always clear, and it is often difficult to draw a distinction between them. INSET provides the opportunity to pursue various lines of enquiry into an experiment, which may be called research or evaluation depending on the focus. Both require careful, logical and systematic study. Where the focus of the enquiry is on investigating the validity of hypotheses or presumptions about something, it may be called research. Where the enquiry is related to a particular activity or aspect, say of an INSET programme, then it is called evaluation. Any INSET programme needs to have an inherent scheme of evaluation if its development is to be smooth. Evaluation may serve the purpose of monitoring or refining a programme while it is in progress. A case study approach may be used to allow for a thorough study of a particular programme or aspect of it. This can give insights into its strengths,

weaknesses and effectiveness. The following quotation shows the importance of research and evaluation in educational developments: "Educational development, being a planned process of change, will be influenced by both evaluation and research, the latter being experimental and developmental in focus." (APEID: 1982.p.8).

The development of an INSET programme, therefore, needs planned research, because research provides directions and support for educational development. INSET also needs evaluation to refine it, to maximize its effect and to judge its effectiveness. The question may be asked here: what have research and evaluation shown? Morant (1981) suggests that until fairly recently these did not occupy the important place in INSET programmes that they should have, but that this situation is now changing: "Until fairly recently, educational research was thought of as esoteric, that is a subject of interest only for those who were initiated into its mysteries. Researchers performed their rites and no one, least of all teachers in schools, was wiser" (Morant, 1981, p. 66)

Educationists agree that research is concerned with hypothesis testing within a conceptual framework. It is therefore crucially important in the planning and execution of INSET programmes if they are to be made relevant to the needs of teachers, curricula and organizations. Morant (1981) further suggests that INSET as a tool "is particularly effective in aiding development by gathering survey data, in helping to elucidate and solve problems, in processing data and in helping to evaluate all kinds of change procedures, impacts and outcome" (Morant, 1981, p. 66).

In its 1982 report, the Asian Programme for Educational Innovation and Development indicated that in Europe and America evaluation and research are well developed but that in most third-world countries in Africa and Asia they have not attained the same level of maturity. The following pronouncement on the state of the arts in Asian countries indicates the urgent need for research and development in teacher education.

In almost all the Asian countries educational research cannot be said to have attained the level of maturity which characterizes research in some of the disciplines of social science like sociology, economics, political science and psychology etc. Not only is the

quantum of research in education low but it is neither well-planned nor systematic. A review of educational research in general and research in teacher education in particular reveals an ad hoc approach to research which is neither based on assessment of the needs of the community.....nor.....
.... sequential in nature.

(APEID, 1982,p. 7)

It will be readily agreed by educationists that research is an necessary component of any activity leading to educational development. It has therefore an important role to play in the development of teacher education through INSET. The main writers on the subject such as Bolam (1982), Rudduck (1981) Morant (1981) and Keast (1984) all agree on its crucial influence in any strategy for INSET. It is also borne out by what has been said above.

Murray (1980) defines educational research succintly as "the development of theory about an area of educational activity which provides an information basis for social action" (Murray, 1980, p. 112).

A survey of several hundred reports and articles on programmes obtained from the ERIC Clearing House on Teacher Education reveals that a very considerable amount of research on INSET programmes has been completed all over the world during the past ten years. This is available for reference. Most of it has rigorous research design and provides valid and reliable findings. A scrutiny of this literature reveals that research in teacher in-service education falls under five broad categories: planning research, such as needs assessment, research on methods and techniques; research on incentive; and motivation, evaluation or impact research and research influencing the organization of INSET programmes. If the first category, on needs assessment, is taken as an example the crucial role that research plays can be ascertained. Bolam (1982) places the importance of needs assessment on INSET in perspective as follows:

The identification of needs, which has exercised so many minds to so little advantage in relation to in-service course provision, is possible only through contact with individual schools....and unless the task of identification is given significance, this mode can be formless and ineffective.

(Bolam, 1982, p. 191)

Rudduck (1981) also believes that before an in-service programme can be organised, the starting point should be an identification of the teachers' professional needs, the range and variety of which will be very wide and numerous. They will derive from the teacher's age, experience his personal and professional education, his teaching competence and his personality and temperament. D

Keast (1984) carried out a very significant research in the south-west of England through the University of Exeter called Provision and Needs in the South-West. This has been referred to under the Aims of INSET. One conclusion that Keast came to was that in-service policy-makers are seldom precise about the particular type of INSET that they have in mind. He observes that INSET comes in a great variety of forms and is motivated by different reasons, yet too often discussion are about the generic concept, as if the implications were the same for all approaches. He points out:

Teachers who are involved in in-service policy making and planning articulate the needs of the schools and the needs of the teachers within the profession. There is already sufficient research of in-service to demonstrate that when teachers in a school work collectively on issues identified by them as being of concern there is pay-off for the school.

(Keast, 1984, p. 7)

Evaluation or impact research may be taken as another example. The crucial importance of evaluation of both a summative and formative nature, as necessary components of an INSET programme, has been noted already. It was made clear that the only way to ascertain whether such a programme is having the desired impact is to subject it to evaluation. There must be a built-in system of evaluation to ascertain how successfully the objectives are being attained. Impact evaluation is done at the closing stage of trying out the programme. It indicates the effectiveness or ineffectiveness of the programme and how much the target group has achieved or gained during the specified period of putting it into effect.

McCabe's (1980) research in this field indicates that since INSET seeks to bring about desired changes and innovation, its field is wide and its

aims are complex and varied. There is therefore a need to invest time and money to establish whether it is indeed worth while. He stresses:

A strong case can be made out for saying that the general idea of evaluation as a commonsense examination of what is being done in any course or programme should be part of all our in-service work.

(McCabe, 1980, p. 15)

The implications are that before planning an INSET Programme it is advisable that a study of relevant existing research in the field, focusing on definite and particular problems, should be carried out. This provides the basis for the identification of objectives of a programme in relation to particular needs. Such a survey can also provide information that can help to plan and carry out a programme without 'reinventing the wheel'.

Chapter 5: The Framework of the Study

The Aims of the Study

The General Aims of the Study

The purpose of this study is to provide information about the TOPS programme in the first year of its operation, with an attempt to formulate recommendations concerning the improvement of the programme.

The information will touch upon those aspects of the programme that are amenable to modification, and it will contain both descriptive and evaluative elements.

The descriptive elements will deal with facts and supplicatory statements about the running of the programme, and the evaluative elements will concentrate on matters related to the success of the programme.

The study provides:

1. Descriptive information about biographical characteristics of the clients of the programme and about difficulties encountered in taking part in the programme.
2. Descriptive information about the desires and expectations of the clients concerning the changes to be introduced.
3. Evaluative information about participation in the programme (process variables).

4. Evaluative information about the results of the programme .
- 5 Information about the pattern of relations between a selected set of (a) descriptive factual and (b) evaluative variables.

Findings concerning these categories are equally important for increasing the efficiency of the programme, since rational decision-making is determined by the availability of descriptive data and evaluative data.

The Specific Aims of the Study

The specific aims of the study are derived from the five major general aims specified in the previous section. Information will be provided for the total population, for the four regions and also for the two races.

Descriptive factual information.

Up until the present time, no information has been available about the characteristics of the learners participating in the programme. Therefore, in this study an attempt has been made to summarise (a) biographical data, (such as sex, age, marital status) (b) professional experience related data (seniority in teaching or subject of teaching, previous education, knowledge of languages), (c) factors related to the learners home conditions, which may interfere with learning.

Descriptive suplicative information.

It is well known that learners themselves constitute a highly valuable source for obtaining recommendations concerning the improvement of their study programme. This is true for learners in general, and one may assume that teachers, who do have some theoretical knowledge about, and accumulated experience in running an educational programme, are exceptionally apt to provide useful diagnostic statements, which may lead to improvement of their own studies.

Therefore, the participants were encouraged to make recommendations and express their expectations for change concerning the following aspects of the programme.

Process related evaluative information.

Educational research has devoted great attention to issues of implementing innovative programmes. Charters and Jones (1978) have made the point that in many cases innovative educational programmes fail to attain the expected objectives because they are not adequately implemented. In numerous cases, an attempt was made to examine the merit of educational interventions by utilising experimental designs, that is, by comparing the level of desired outcomes in the experimental (intervention) and control group (a group which was not given the experimental treatment). Quite often such comparisons have demonstrated that no significant differences can be observed between the levels of the examined outcome variables in the two groups.

Charters and Jones (1978) claim that in a great many cases the lack of programme impact is due to, what they call, "no event", that is, that the experimental group itself did not systematically work according to the formal specification of the experimental treatment, and so it did not differ from the control group with regard to the actual treatment assigned to it. This is the reason that educational evaluation in the last decade, has emphasised the necessity of evaluating the process of treatment itself and not only its outcome (Fullen and Promfret 1977). The process variables examined within the framework of the present study deal with (a) the conditions of implementation, and (b) the implementation process itself.

Outcome related evaluative information.

The aim of the TOPS Programme is to help teachers to pass matriculation examinations in order to be qualified for their job. Therefore, it is natural that this evaluation project makes an attempt to provide detailed

information about the examination results. An additional outcome of participating in the course is the decision made by a teacher, who succeeded in a particular examination, to enrol onto another course and to study for examinations in other subjects. Finally, the participation in courses may result in improving teaching skills. Outcome variables examined in this study are as follows: (a) attending examinations (b) passing examinations (c) enrolling on new TOPS courses (d) changing teaching behaviour.

Relationship among selected variables.

Within the framework of the present study, the interrelationship among selected variables was examined. Since the study deals with about 130 variables, one could have produced approximately 9,000 bivariate correlation coefficients. Of course, reporting on so many relationship patterns is prohibitive, both from the point of view of the writer and the reader. Therefore, a careful selection of variable pairs was made, based on the assessment of the theoretic and the pragmatic significance of the produced statistics. It should be noted that relationships established among variables do not necessarily indicate the existence of causal relationship, since the association among variables may be explained by external variables not being considered within the framework of the study. Nevertheless the findings of this study may facilitate the conduction of causal analysis, which may provide information about promising ways of increasing the utility of the project. The interrelationships examined in this study are among achievement variables themselves and among a selected set of biographical variables on one hand and achievement variables on the other hand.

Population

As indicated above the TOPS project operated in four regions of the country: Transvaal, Western Cape, Eastern Cape, and Kwa Zulu. Within each region several study centres were established. Due to the geographical concentration of the various races, separate centres had to

be established for the Coloured and for the Black participants of the project. The target population of the programme were teachers who taught in the Upper Primary Standards 3 - 5 who had completed studies up to Standard 8, had spent two years at teacher training college and had some teaching experience.

Table 12 provides information about the number of centres in each region.

Table 12
Study centres in the four regions.

The Region	Black	Coloured	All
Transvaal	2	1	3
Western Cape	1	3	4
Eastern Cape	2	2	4
Kwa Zulu	2	-	2
All	7	6	13

Each region admitted learners from about fifteen schools. The number of schools linked to a particular centre was determined on the basis of geographical and transport considerations. It was important to ensure that schools should be clustered around the centres in a way which ensured easy access of the learners to the centres.

The centres were established within teacher training institutes or high schools, which had adequate facilities for teaching Science and Biology. Data about the number of schools and learners clustered in each region are presented in Table 13.

Table 13
Number of schools and learners in regions.

The Region	Schools	Learners
Transvaal	49	277
Western Cape	67	316
Eastern Cape	44	202
Kwa Zulu	47	142
All	207	937

The number of participants from a particular school varied greatly. From some schools only one teacher participated in the TOPS programme while there were schools which sent approximately eighteen participants.

In the thirteen centres of the project ninety four tutors were employed in 1984.

An attempt was made to obtain descriptive and evaluative information from all members of the target population, nevertheless, this task could not be fully accomplished. Table 14 contains information on responses obtained to questionnaires in the various regions.

Table 14
Number of responses to questionnaires.

The Region	The questionnaires				
	Applica- tion Form	Students Evaluation	Follow Up	Tutors Evalua- tion	Co-ordinators Evaluation
Transvaal	277	253	254	11	1
Western Cape	316	242	80	29	1
Eastern Cape	202	180	43	-	1
Kwa Zulu	142	138	38	10	2
TOTALS	937	813	315	50	5

One cannot state with certainty, that those who responded to the questionnaires represent the whole population in an unbiased manner. Nevertheless, the relatively large quantity of forms returned do constitute a guarantee for the validity of the information derived from them.

The Data Collection Instruments

Within the framework of the study, data was collected by using the following instruments and techniques: questionnaires, interviews, and observation.

Questionnaires

Five different kinds of questionnaire were used. Three were completed by the learners at different phases of their participation in the programme: application form (student selection)-before their entry to the course; an evaluation form- after several months on the programme;

and a follow up form, approximately one year after entry to the programme. One questionnaire was filled out by the tutors and one by the regional coordinators. All questionnaires were answered with full identification of the respondents.

Application forms (Student Selection).

The application form contained twenty seven clusters of questions which provided information about biographical characteristics of the applicants; (age, sex, marital status), initial training, professional experience, the support provided by the school to the studies, and specifications about the subjects the participants planned to study.

Twenty seven clusters of questions were coded into sixty one variables.

Students evaluation form .

This form was given to participants after they had gained some experience with the TOPS project. The participants were asked to provide descriptive and evaluative statements about the project. Information was requested from them about the following issues: personal identification, difficulties encountered in the process of the studies, previous education in each subject field, suggestions for increasing the number of students in Mathematics and Science, suggestions for improving the TOPS programme.

Follow up questionnaire.

After completing at least one year of study and after being exposed to the challenge of taking matriculation examinations, participants were asked to complete another questionnaire, which contained information about their success (or failure) in the examinations, their plans to continue studying with TOPS and the impact of being involved with TOPS as students on their work in school and on their professional development.

This questionnaire was given both to those who attempted the matriculation examinations, and to those who dropped out of the TOPS project and did not make an attempt to take matriculation examinations. In many cases, the senior tutor of the centre filled out the questionnaire, for those who did not continue to participate in the TOPS programme.

Tutors' evaluation.

The tutors were asked to make evaluative comments about the programme. The four major clusters of questions touched upon the following issues: technical issues (such as transport, time schedule) learners behaviour (attendance, understanding), evaluation procedures utilized in their work and the quality of the study variables. Since the responses given by the tutors brought up a great variety of issues it turned out that their responses were coded into seventy eight variables. Thus, for example, remarks made on study materials were coded separately for each subject and therefore, the responses to this single variable became coded as fifteen variables.

Co-ordinators' evaluation form.

The five regional co-ordinators filled out comprehensive questionnaires touching upon a great variety of issues related to the TOPS programme. Since this form was filled out by only five persons it was not suitable for statistical analysis. Accordingly, they were summarised only qualitatively, and remarks contained in this form were used mainly for illuminating the meaning of some quantitatively derived statistics. The co-ordinators commented on issues of the structure of the programme, organisational efficiency, regional autonomy, students' motivation, tutors' responsibility etc.

Interviews

The writer conducted interviews with a broad variety of educational experts and people who had contact and interest in the TOPS project. Interviews were conducted with leaders of various teachers unions, (Cape Teachers Professional Association, The Natal African Teachers Union, The Peninsula African Teachers Union and the Transvaal Union of African Teachers). Interviews were also held with lecturers in education departments, professional experts from various universities, and the co-ordinators of regional centres. These interviews were of a non-structured type and within their framework a variety of aspects of the programme were discussed. The results of the interviews were then reported at the National Committee meetings and were used for making decisions about the programme. Data collected through these interviews were used in a qualitative manner to illuminate findings reported in the study.

Observation

The writer visited all centres and attended classes in most of them. The opportunity to make direct observations about the implementation of the project turned out to be very useful for identifying problems and for gaining a better insight into issues which are crucial for running the programme. The site visits served a variety of purposes. They focussed primarily on management issues and on problems of monitoring the programme, but nevertheless, they also provided evaluative data. One cannot claim that the impressions gained through observations on such occasions are free of bias. The impressions obtained through such site visits therefore, were used mainly for interpreting findings derived from other sources.

The information derived from site visits was also reported to the National Committee and is recorded in the minutes of these Committee Meetings.

Data Coding

The data collected through questionnaires were recorded in coded form, transcribed on special coding sheets which were prepared for this purpose. For each questionnaire a special coding key was prepared, which provided the verbal equivalent for the numerically recorded data. Additionally computer variables were derived from the responses. (A copy of each form, coding key, coding sheet and computer variable name list are presented in appendices).

Derived Variables

In addition to the variables directly coded from forms filled out by the respondent, several new variables were derived through the additive combination of responses given to related questions.

Thus, for example, nine responses appearing in the students' evaluation form, which referred to the existence of some difficulty encountered by the learner, (such as lack of light at home, or difficulties in comprehending the learning materials,) were combined into a single variable, "Difficulties Encountered".

Another example of such derived variable was "Language Knowledge". On the basis of the level of knowledge and ability and also, for knowing how to write in the same language, one could "earn" 1-3 points. One derived variable dealt with the mastery of the two main languages (English and Afrikaans), and another one with the knowledge of vernacular languages, (i.e. how many different vernacular languages a learner had mastered).

Data Analysis

The data were analysed by using the Statistical Package for Social Science Computer Programmes (Nie et al 1975). Most results are based on univariate statistics (frequency distribution of responses, means and

standard deviations). Since no sampling has been carried out in this study, and the data summaries characterised the total population, no tests of significance were made. Bivariate statistics (correlation coefficients, and crosstabulation of variable responses) were produced for selected sets of paired variables.

CHAPTER 6: Results.

It will be readily accepted that to plan an educational programme effectively, or to refine it while it is in operation, planners require reliable and comprehensive information on how effectively it is attaining its stated objectives. This chapter provides information about five interrelated areas that may be of assistance to the planners in this task. These areas are as follows:

- descriptive information
- descriptive supplicative information*
- process-related evaluative information
- outcome-related evaluative information
- patterns of relations between selected variables

The decision to structure the present evaluative study round these five interrelated areas can be justified on grounds both of practical and of theoretical considerations. As to the practical considerations, such information is needed for providing evidence to the programme planners on whether the participants in the programme represent the intended target population, and whether the various sub-strata of the intended population are equally represented in the group of participants. Where that is not so, speculation will be made on the reasons why, and attempts made to suggest recommendations, on what may be done to rectify the situation. The information may also help in adjusting the programme characteristics to the special needs of the particular population groups. Such information may constitute useful input in planning or refining the TOPS programme.

*Statements made by respondents, which contained some request, or specification of a desired change, or programme modification are, in this report, denoted as supplicative statements or supplicative information.

As to the theoretical considerations, the present structure reflects current conceptions, which extend the boundaries of evaluation beyond the narrow limits of comparing outcomes attained in an experimental group versus those attained in a control group.

Views put forward by contemporary scholars broaden the scope of evaluation targets, as well as that of methodologies to be employed within its framework. Stufflebeam's (1971) CIPP model contains, in addition to the conventionally handled Outcome or Product variables, also Context, Input, and Process variables. As already indicated, Stake's (1967) 'Countenance' model also considers the antecedent variables, i.e. variables that characterize an educational scene before a particular programme became installed as well as the transaction variables, i.e. variables that describe events and behaviours during the process of operating a programme, as legitimate concomitant variables of programme outcomes.

The areas examined in the present study can be accounted for both by the CIPP and by the Countenance models, since the two blocks of descriptive variables correspond to the Context and Input variables defined by Stufflebeam (1971), or by the Transactional variables defined by Stake (1967). Clearly enough, the process and the outcome variables correspond to those explicitly specified in these models. The fifth area suggested for examination in the present study is the 'pattern of relations between selected variables' which corresponds to the classical study pattern of correlation studies, characterized by Cronbach (1975) as an alternative paradigm to experimental studies.

Descriptive Factual Information

Several experts attribute great significance to the descriptive data from the point of view of improving the programme. Stake (1967) defines the attempts at examining the relations between intended programme parameters

and those observed as "congruence studies", which in his opinion, together with "contingency studies" constitute the two main categories of evaluation. Guba and Lincoln (1981, p. 149) state, that "the role of description in social sciences cannot be overvalued, since it provides the basis for grounded theory, that is theory that is grounded in the 'real world' of observable phenomena".

Moreover, Partlett and Hamilton (1972) say that the main purpose of evaluation is to provide illuminative information for helping those working on the planning and implementing of programmes to understand the parameters of the situation more clearly.

This view is shared by Cronbach:

The evaluator's ultimate product is more a summary of what occurred in certain sites where a certain programme was in operation. The community will want to know what can be expected in our sites, and what can be expected of a modified programme. The evaluator, then, is called on to illuminate the whole problem area in a comparatively short period of time. In doing so, he comes to recognize a large number of politically relevant questions about the programme. But he cannot hope to answer them all and should not investigate each of them with equal intensity. To put extra effort into answering one question is to limit what will be learned about another, Designing an evaluation is a continuing process. What variables deserve close attention will be discovered as the field work proceeds. A decision to look intensively at one variable implies scanting investigation of some other variable.

(Cronbach, 1981, p.7)

Cronbach also suggests that the evaluator should almost never sacrifice breadth of information for the sake of giving a definite answer to a narrow question.

In the present literature on evaluation the concept of "portrayal" which is a form of description with feeling tone, is a powerful end to be served by the evaluator. Following that line, the present study contains factual information about biographical characteristics of the participants in TOPS, about their professional characteristics and about home and school variables related to successful participation. These sets of factual information serve three purposes. Firstly, they enable the programme planner to examine the congruence between intents and

reality (Stake 1967), in other words, they enable him to answer questions about whether the programme operates in a way that fits the intentions of interested parties of various types, such as the sponsor, the planner, the programme administrator and the target population.

The factual data presented in the chapter may simultaneously serve the needs of various evaluation clients (Nevo 1983). Secondly, the data may help to identify environmental factors that hinder the smooth running of the programme. The presentation of factual data can be conceptualized as a Context Study, which, according to Stufflebeam's (1971) CIPP model, is symbolized in the first letter of the acronym. Finally, the summary of factual information constitutes the first step for carrying out more sophisticated data analyses. More precisely, in the present study such information provides orientation for planning bivariate analyses, which constitute the fifth focus of the data summaries, as indicated above.

Biographical Information

Studies focusing on biographical data and their relation to success in teachers' in-service and pre-service training were very much in vogue in the 1950's, when the first large-scale empirical studies on teacher-training were carried out in the USA. A typical example of such studies is Ryan's (1960) book on the teachers' characteristics. Bloom (1981) distinguished between studies that deal with the question: Who are the teachers? and those that deal with the question: What do teachers do? and argued that answering questions of the second type might be more useful for improving educational practice. Indeed, in recent decades in highly developed countries, the interest in teachers' biographical characteristics has greatly diminished. Nevertheless, even recently there have been studies that examine the relationships between years of seniority or sex of teachers on one hand and the gain they obtain from participating in INSET programmes on the other. Thus, for example, Joslin (1980) on the basis of a meta-analysis of 137 studies carried out between 1965 and 1978 found that INSET is successful in producing changes in behaviour in teachers with less than ten years' experience. Klemm (1982) examined the relations between the experience, sex, and age of the teachers on the one hand and gains from participating in "workshops" on the other.

Since INSET programmes in South Africa have not yet been empirically studied, it was found to be useful to examine the characteristics of teachers participating in the TOPS project.

The descriptive factual information presents biographical data on the race, sex, age and marital status of the learners, their professional qualifications and their level of attainment.

Race.

The target population of the TOPS programme is heterogeneous. There are wide differences in race, language and culture. The two main racial groupings in the programme are those classified in law as Coloureds and Blacks. Table 15 gives information about the distribution of the races in the TOPS programme according to the four regions of South Africa. It was found that in the programme the Coloureds and Blacks constitute 41% and 59% respectively.

Table 15
TOPS participants according to race in the four
regions by percentage

Region	Coloured	Black	Total	No. of participants
Transvaal	33	67	100	277
Western Cape	71	29	100	316
Eastern Cape	35	65	100	202
Kwa-Zulu (Natal)	-	100	100	142
TOTAL	41	59	100	937

In the Western Cape there are three centres, which represent the large 71% coloured group. The 29% represents one large centre for Blacks. Black people are in the minority in the Western Cape. Most of the Black population are Xhosa from the Ciskei and the Transkei, most of whom originally migrated to the Cape for employment. Blacks are very much in the majority in the other three regions in which TOPS operates, and in Kwa-Zulu, as Table 15 indicates, there are no Coloured participants at all. The 35% in the Eastern Cape represents two coloured centres. The 560 black teachers and 377 coloured teachers in the programme are divided into six Coloured centres, six Black centres and one mixed or open centre, which accommodates both race groups. This is not a fair distribution of centres. There are many more under-qualified Black teachers than under-qualified Coloured teachers. The Human Sciences Research Council Investigation into Education (1981) estimated that in the target population there were eighty thousand Black and Coloured teachers, of whom the vast majority were Black (67%). This suggests that any expansion of the programme should be among the Black population, but does not imply that there should be any reduction in the number of centres for teachers classified as Coloured.

Most of the black people in the Eastern Cape are Xhosa-speaking and historically the Ciskei and the Transkei are the two tribal homelands of the Xhosa-speaking people.

The 33% coloured participants in the Transvaal is a very high proportion. It should be emphasized that the TOPS centres are completely open to all race groups in the target population. Teachers are not excluded on grounds of race, and they may attend the centre nearest to them, regardless of racial classification. The Group Areas Act requires the different race groups to live separately from each other. Because the TOPS programme attempted to establish centres as conveniently near as possible to the community being served, with a few exceptions they were attended by only Coloured teachers, or only Black teachers. The only centre that admitted black and coloured teachers together in significant numbers was in George, where there was only one centre and the communities were living very close to each other.

Nevertheless, where possible, attempts were made to bring the communities together as one group, and tutors from all race groups were appointed regardless of colour, race or creed. Furthermore, the large centre for Blacks at Langa in the Western Cape was entirely run and administered by the largely Coloured Cape Teachers' Professional Association. All regional steering committees were composed of people from education, commerce and industry, who represented all race groups. That was true also of the national committee, which was made of leading educationists from all the race groups of the country.

Age.

There are several reasons for noting the age of the participants in INSET programmes of any type. First, investments in INSET programmes for young teachers are likely to have greater pay-off than those for older ones. Young teachers continue to serve in the system for a relatively long time, and therefore their work will affect the quality of schooling for a longer time than that of older teachers. So one may say that in the face of scarcity of resources, one should prefer investments in younger persons. Secondly, as already indicated, younger persons are more open to change in their behaviour (Joslin 1980). Against these arguments one may present the concept of lifelong education, which supports the idea that people of all ages should pursue further education. Additionally, it may be useful to organize study groups, which are characterized by a certain balance between young and older persons, to establish an integration of life experience with openness to change. Finally, in the culture of the Black people, as well as in most other cultures, age commands respect. Excluding teachers on the basis of their age could therefore cause grievous offence to people in the Black communities, and one might question the morality of such a bias. These considerations justify the examination of the age distribution of the TOPS participants. The data in Table 16 indicate that the age-range is great, from 19 to 60 years. Most of the participants (55%) fall within the 26-35 year age-range and 20% within the 19-25 age-range. A further 25% fall into the 36-60 year age-range. However, only 8% of the population fall within the 46-65 year age-range.

Table 16
Age of participants in TOPS programme by percentage

Region	Age in years					All
	19-25	26-35	36-45	46-55	56-	
Transvaal	12	56	24	7	1	100
Western Cape	29	54	12	4	1	100
Eastern Cape	11	64	15	8	2	100
Kwa-Zulu	25	47	16	10	2	100
TOTALS	20	55	17	7	1	100

The 8% of teachers from the age of 46 years and over will continue to teach only for a relatively short time. Nevertheless, one could hardly refuse to admit them to the courses, since it would unfairly discriminate against them; and one may assume that they would feel that they had as much as right to entry as those who still had many years of teaching ahead of them. The opening remark of this section has reference here. The pay-off or investment would certainly require that the cut-off point to be at the age of 45, i.e. that 8% of the present population would not be admitted. However, it may legitimately be said that a policy of restricting entry to the study programme of TOPS purely on the basis of age was directly opposed to the idea of life-long education and was a denial of opportunity to those in need. In the sensitive South African milieu that could have real import and repercussions.

Sex and marital status.

Generally there is little doubt that many more women are attracted to the profession of teaching than men. In the USA, as early as 1890, the proportion of women teachers was twice that of men (Tyack and Strober 1979). In recent years there have been cries from many quarters that because there are so many women in the profession, it has been feminized to such an extent that male teachers have been emasculated. The reasons put forward for the preponderance of women are many. Paramount among them however, are practical matters such as that a high proportion of women teachers are working mothers and can be at home or on holiday at the same time as their children. Another is that teaching is a poorly paid profession but fine for women, because it merely augments the husband's salary, or even that a woman may stop or start teaching at any time to suit herself, as long as she possesses the basic qualification. There is much truth in all of these; nevertheless the position of male teachers should be not underestimated, even in the light of the data presented in Table 17 on the sex of the participants in the TOPS programme.

The data shown in Table 17 indicate that 81% of the students are female. They suggest, therefore, that many of the participants were working mothers with children.

One may presume that there were difficulties in fitting in teaching duties and family commitments with TOPS studies, which would require up to nine hours' tuition a week.

In the Western Cape, where there were more Coloured participants than anywhere else, 96% were women. This is 22% more than the Transvaal, 26% more than the Eastern Cape and 19% more than Kwa-Zulu, where there are no Coloured participants at all. If TOPS may be considered a microcosm of the teaching profession, the data would seem to indicate that among the Coloured population teaching is very much a female-dominated profession, in the ratio of 24:1 while in the Black population women outnumber the men by three to one.

Table 17
Sex of participants in the TOPS programme by percentage

Region	Male	Female	Total
Transvaal	26	74	100
Western Cape	4	96	100
Eastern Cape	30	70	100
Kwa-Zulu	27	77	100
TOTALS	19	81	100

The teaching profession in most countries serves as a means of upward social mobility (Levine 1971). That is true of South Africa also. Discussion with Coloured people in the Western Cape on this point indicated that one of the highest compliments a girl could pay her parents was to become a teacher. This seems to be tied up with notions of security and with how the communities regarded the social standing of the teachers, i.e. whether communities held the teachers in high respect. The marital status of teachers was a subject of investigation in Ryan's study (1960), and it was found that married teachers have a more businesslike attitude to class management than unmarried teachers. While one cannot generalize these findings for South Africa, it was nevertheless of interest to examine the marital status of the TOPS participants. Data revealed that 56% were married, 41% single and 3% divorced. Discussion among the Black women participants revealed that many of them were unmarried but had children to support. It was not possible to gather data on this delicate question but the main reason for that was that they intended to marry the fathers of their children as soon as they had paid the lobola (bride-price) to the girls' parents.

Professional-Experience & Related Data

Seniority.

The general belief that 'you can't buy experience' is as applicable to the teaching profession as to any other. Teachers with years of seniority usually carry an aura of respect in the eyes of those who have just entered the profession. Educationists agree that teaching is a profession in which one never stops learning, regardless of the length of time one remains in it. The seniority of teachers served as an independent variable in a great many studies about teachers' effectiveness. In the well-known study of Coleman (1966) the seniority of a teacher is one of the important variables that affect the teachers' success in raising the achievement-level of children in a disadvantaged population stratum. Morgan (1976) found that a teacher's experience has greater effect on the pupil's reading score gain, than it has on the mathematics score gain. While several studies suggest that teacher's experience has beneficial effect on the quality of the teacher's work, nevertheless many experts believe that years of seniority do not mean that those who have been teaching a subject for many years are necessarily better teachers. This implies that instead of having years of experience, they may have had the same routine experience many times over, if they have not made attempt to grow in the profession through studying new techniques and keeping abreast of developments, either through private study or through following courses of INSET such as TOPS.

It seems reasonable to assume that the teachers who take part in the TOPS programme are as dedicated as teachers anywhere in the world. As Table 18 indicates, there is a very wide range of experience among TOPS participants, however poor their previous level of education and training may have been. They will also be faced with the same problems that teachers everywhere are faced with: that of dividing their time between home and school responsibilities and increasing their academic and professional competence through INSET courses.

Discussion and interviews with principals indicate that in spite of low qualifications and poor professional training, many of the TOPS

participants were excellent and very experienced teachers who had been greatly discouraged and frustrated by being reclassified as under-qualified by government legislation. Their primary motive in taking TOPS courses was to obtain recognized legal status as qualified teachers by upgrading their academic qualifications to matriculation level.

Table 18
Years of seniority of teachers in the TOPS
programme by percentage

Region	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	Totals
Transvaal	32	27	22	8	7	3	1	-	100
Western Cape	40	31	14	7	5	1	1	1	100
Eastern Cape	27	33	21	8	6	3	1	1	100
Kwa-Zulu	42	28	8	5	8	5	2	1	100
TOTALS	35	30	16	8	6	3	1	1	100

Table 18 indicates that 81% of the teachers in the TOPS programme have fifteen years' teaching experience or less. Most, however, (65%), have no more than ten years' experience. According to Joslin (1980) this group is most apt to benefit from INSET programmes. Those with fifteen years' experience and over comprise only 19% of those taking TOPS courses. However, to exclude people from taking part in TOPS on the grounds of years of experience has exactly the same implications as

excluding them on the grounds of age; it would be grossly unjust and discriminatory. The implications of seniority in the profession are different for courses of methodology and teaching competence than for academic courses. In the case of the methodology courses, it might be detrimental to exclude teachers on the grounds of age, because these long-service teachers have a wealth of experience to draw on, and might well be a source of valuable information to those, who have little or no seniority in the profession.

Table 19 summarizes responses given by 370 persons about their willingness to take part in methodology courses.

Table 19
Intentions of students on whether to study didactics
of methodology component

Willing to attend	Age -25	26-35	36-45	46-55	56-	Totals
Yes	58	209	64	26	5	362
NO	2	5	1	-	-	8

The results reveal that most respondents at all age levels are willing to attend methodology courses. There is a good mixture of youth and experience, among those who wish to take part in these courses and it is significant that 65% of the TOPS participants are in their first ten years of teaching. It may be, therefore, that these young teachers have an understanding and appreciation of the real meaning of INSET. They are trying to grow academically and professionally, and one may assume that they will not fall into the category defined by Sportsman (1981) as those who are the bane of the teaching profession and..

become encrusted on the teaching world, like barnacles on an old trawler, and they never leave. Their methods, style, subject-matter and opinions become more resistant to change. They simply regard a proposal of new ideas as an encroachment upon their domain, reacting against it instead of evaluating it thoughtfully."

(Sportsman, 1981, p. 308)

The general consensus among the TOPS participants was that regardless of seniority, experience, or age, they considered themselves fortunate to have opportunity to study through TOPS and acquire qualified status through matriculation.

Teaching subjects.

At the primary level, teachers in Black education are expected to be prepared to teach all subjects of the curriculum. In practice, however, they may not have to do this. Table 20 details the subjects taught by TOPS participants .

Table 20
Subjects taught by TOPS students by percentage

Region	English	Afrikaans	Mathematics	Science	Biology
Transvaal	43	41	23	39	44
Western Cape	53	48	28	23	53
Eastern Cape	54	53	38	42	53
Kwa-Zulu	74	45	26	47	48
TOTALS	53	47	28	36	49

On the five subjects offered by TOPS 53% taught English, 47% Afrikaans, 28% Mathematics, 36% Science and 49% Biology. Only in English does the figure for those teaching the subject exceed 50%, with Biology and Afrikaans in second and third places. Over 20% more of the teachers in Kwa-Zulu were teaching English than in the other regions and 30% more in the Transvaal. Very few teachers were teaching Mathematics and Science at school.

It is difficult to determine why the Mathematics and Science teachers are under-represented in the TOPS population. One may suggest three explanations. First, it may be that the teachers who teach Mathematics and Science already have Science at matriculation level and therefore did not need it. There is also the possibility that some teachers wished to start with subjects that they considered promised more success. A third reason is, that Science and Mathematics may not be taught in some schools, despite the fact that there are departmental regulations to do so.

Previous education.

The intellectual capabilities of the teacher and their effect on the quality of teaching is a topic that has been examined in several studies. Gage (1978) refers to them as presage variables. In most studies the intellectual capabilities of teachers were measured by means of standardized tests, course grades and qualifying examination scores. The teaching quality was usually measured by ratings of peers and supervisors, by success in teacher-competence tests, and by achievement gains of their pupils. Getzels and Jackson (1963) summarized a series of studies that demonstrate that such presage variables are highly indicative of success in teaching. In highly developed countries completing a certain course of study is an indispensable prerequisite for entering the teaching profession. In most cases the school grades or marks constitute an adequate measure of intellectual capabilities. In poorly developed countries or school systems, where there is little social pressure on learners to complete their secondary education, and many teachers have not attained a high level of formal qualification or certification, one may consider the number of years completed in the school as a proxy measure of intellectual capabilities.

A consideration of circumstances led the planners of the TOPS programme to set a prerequisite entry level for the courses. A standard 8

certificate was taken as a minimal entry level. Consequently an interest in obtaining information about the adequacy of the educational entry level of the TOPS participants was revealed. It should be noted that no screening or testing procedures were carried out to ascertain, whether the TOPS participants were in fact at this level. Selection was made purely on the basis of what the teachers had put on their application forms, and they were not required to produce any evidence of attainment. Table 21 shows that they had the entry qualification or above for subjects, i.e. Mathematics Std 8 - 90%, English Std 8 - 100%, Biology Std 8 - 98%, Physical Science Std 8 - 92%, and Afrikaans Std 8 - 100%.

Table 21
Standards attained by students in
subjects by percentage

Region	English Standards completed 6 7 8 9 10	Afrikaans Standards completed 6 7 8 9 10	Mathematics Standards completed 6 7 8 9 10	Biology Standards completed 6 7 8 9 10	Science Standards completed 6 7 8 9 10
Transvaal	1 6 3 30	1 1 66 2 30	5 3 86 2 4	1 1 82 9 7	3 2 92 2 1
Western Cape	89 2 9	- - 92 3 5	13 5 81 - 1	- 1 95 4 -	4 7 87 1 1
Eastern Cape	72 3 25	- - 70 3 27	3 5 90 - 2	3 1 83 2 1	4 7 88 1 2
Kwa-Zulu	1 68 1 31	1 - 80 2 17	- 2 95 2 1	- 1 88 2 9	- 3 93 1 3
TOTALS	76 3 21	- - 79 3 18	7 3 87 1 2	1 1 88 4 6	3 5 90 1 1

Table 22 gives the figures by age and qualification of the participants, who enrolled in the five subjects. The numbers enrolled for the subjects were as follows: English 534, Afrikaans 473, Mathematics 296, Biology 536 and Physical Science 167. It is significant that almost no participants in the age-range 50-69 who had not passed Standard 8 or 9 enrolled for TOPS courses (see Table 22). One may assume that they thought their age was against them, and that they were too near to retirement to begin studying from the Standard 6 or 7 level.

In real terms, however, many of participants were found to be well below Standard 8 once the courses got under way. Serious difficulties arose because, although they had the required level of entry on paper, 75% of them were above the age of 26 years, and 65% of the participants had already been teaching for up to ten years. One may assume, therefore, that these participants could be expected to have a much lower level of attainment, because they had last studied a long time ago, and had long forgotten many of the rudiments.

Table 22
Standards achieved by age of TOPS students
actual numbers)

Age	Mathematics				English				Biology				Physical Science				Afrikaans			
	Standards completed				Standards completed				Standards completed				Standards completed				Standards completed			
	-7	8	9+	All	-7	8	9+	All	-7	8	9+	All	-7	8	9+	All	-7	8	9+	All
20-29	13	128	11	152	-	248	21	269	6	252	14	272	5	69	9	83	-	238	13	250
30-39	7	101	5	113	1	159	25	185	4	168	15	187	4	60	2	66	-	141	14	155
40-49	4	17	3	24	1	50	6	57	3	53	6	62	-	11	2	13	1	44	5	50
50-59	-	7	-	7	1	21	-	22	-	13	2	15	-	4	-	4	-	16	1	17
60-69	-	1	-	-	-	1	-	1	-	-	-	-	-	1	-	1	-	1	-	-
TOTALS	24	254	19	296	3	479	52	534	13	487	37	536	9	45	13	167	1	439	33	473

It may be assumed also, that since the older participants had not studied for such a long time, they had no study skills and did not know how to

divide their time between study, attendance at lectures, commitments to home, family and school, or how to pace their studies over one, two or three years. To cover the Standard 9 and 10 syllabus in 40 weeks of tuition in up to three subjects demands great reserves of stamina, and many participants admitted after beginning the courses that they had had over-inflated ideas about their level and their ability to cover the syllabus in time. Nevertheless some managed very well, and two remarkable women participants in the over-fifty age-range took five subjects and passed them all first time, thus attaining qualified status and a large increase in salary.

Since the method of enrolling teachers on the various TOPS courses was identical in all centres, one may assume that the difficulties encountered in the various regions were the same. This was corroborated by the tutors, both at their meetings and in their questionnaire responses. It was generally considered that such a situation in the classroom had a very debilitating effect on the tutors, who were in effect coping with a situation foreign to their usual teaching environment. Mehl reported that a high level of discouragement had been discerned among them. (TOPS, National, 1985b).

Since the data indicate that Mehl is right, these are realities within which TOPS must continue to operate. Unless the programme is constructed more round the needs of the participants, and unless refined methods of delivery are introduced, the situation will not improve, and the results will continue to be the same.

Mehl in his evaluation report on the Western Cape, suggests that teachers with Standard 6 and 7 should be considered for the programme only, if it is possible to develop an efficient academic component that will effectively take them to matriculation. All the co-ordinators agreed that the Standard 8 level claimed by most of the participants existed only on paper, because most had not, in their opinion, studied for many years and had forgotten many of the rudiments in some subjects. In Kwa-Zulu the TOPS participants had managed to keep up their studies, especially in the languages, but Mathematics, Physical Science and Biology presented real difficulties for most of them.

After two years of operating TOPS the most significant difficulty with the academic component of the programme had been clearly established by the tutors, co-ordinators and senior tutors. It was outlined by Mehl, in a report to the national sub-committee for education, as

a tacit assumption made in offering a candidate the opportunity to do a matric course in one year is, that the participating teacher is at Std 8 level in that particular subject. Experience in the TOPS classroom has demonstrated conclusively that this is not so

(TOPS, National, 1985b)

Consequently any TOPS class had a range of levels of entry for a particular subject at any one time. According to Mehl, many of the tutors in the Western Cape reported that in their estimation many participating teachers were only at Standard 5 or 6 level, and while that was true of all subjects, it seemed to be particularly so in the case of Mathematics and Science.

While most teachers have reached Std 8 level in the languages, since these are compulsory (Xhosa and/or Zulu, English and Afrikaans), albeit a while back, this is not necessarily true of Science and Mathematics. In fact, it is likely that these two subjects would have been avoided by persons who may have been disposed to leave school at Std 8. It would be important to determine to what extent this is also true of Biology, since this subject is very popular among TOPS participants.

(TOPS, National, 1985b)

As indicated in table 23 most participants, especially those in older age groups, wished to take two years over their studies. One may assume that those who wished to do the courses in one year, were those who were fluent or very good in the two languages of instruction, English and Afrikaans (47% and 42% respectively), and those younger participants in the 19-25 year age-range who, according to the tutors and the regional co-ordinators, were able to finish courses in Mathematics, Physical Science and Biology within one academic year. It should be noted, however, that the enrolment for these "difficult subjects" was generally much lower, and most of the participants wished to take two years to prepare for the examinations.

Table 23
Preferred examination dates in the
subjects by percentage

Subject	1984	1985	Total
Afrikaans	47	53	100
Mathematics	43	57	100
English	42	58	100
Biology	37	63	100
Physical Science	26	79	100

Language competence.

Bernstein (1971) carried out an important piece of research on language and social environment, and his terms "restricted code" and "elaborated code" have become widely known. The United Kingdom HMSO Report (1975 p.53) A Language for life says that "there is a premium on the need to develop more and sophisticated uses of language."

Even before the work of Basil Bernstein many educationists had stressed the importance of language as a tool of learning . Charlemagne for example is said to have recommended that the children should first learn their own language, then Latin, and then another language.

The variable "language competence" has been intensively studied within the context of teachers' effectiveness, and it was found that among the presage variables it has the highest predictive value with regard to pupil's achievement gain. Despite the crucial importance of language competence, Shields and Daniele (1982) reported that in the U.S.A. the linguistic ability of teachers was substantially lower than the national average of those who took university entry examinations. Levine (1968) carried out an experimental study and demonstrated that raising the

language ability of the teacher is the most-effective way to improve pupils' achievement gain.

In South Africa many languages are used and spoken, and this is reflected in the languages spoken by the teachers taking part in the TOPS programme. The two media used for instruction, however, are Afrikaans and English. While most Coloured participants have a working knowledge of English, Afrikaans is their home language and the language used to educate them. This means that TOPS materials have to be translated into Afrikaans and Afrikaans speaking participants have only tutors, who are Afrikaans-speaking or are fully bilingual.

Table 24
Language spoken and written fluently by
TOPS students by percentage

Region	Afrikaans Speak/Write		English Speak/Write		Zulu Speak/Write		Xhosa Speak/Write		Sotho Speak/Write		Other	
Transvaal	44	43	54	57	15	15	6	6	25	25	14	11
Western Cape	63	64	48	49	-	-	26	27	-	-	-	-
Eastern Cape	43	48	70	69	1	1	58	53	1	2	3	1
Kwa-Zulu	10	15	84	85	89	82	-	-	1	-	-	-
TOTALS	45	46	60	61	18	17	24	22	8	9	4	3

As indicated in Table 24 in the Western Cape the percentage of the TOPS participants with the ability to speak Afrikaans fluently is the highest in the country. The percentage is 63%.

The ability to write Afrikaans is also the highest, at 64%.

Even so, these percentages are not high for teachers whose home language is Afrikaans, and who come from communities where Afrikaans is spoken.

In Kwa-Zulu, where all the TOPS participants are Zulu-speaking, only 15%

can write Afrikaans very well, and 10% claim to speak it fluently. In the Transvaal the percentages 44% and 43% reflect the fact that there is an Afrikaans-speaking Coloured centre in operation. Nevertheless one might expect that since Afrikaans is one of the two official languages of South Africa the participants in general would have a greater facility in its use.

African people in South Africa seem to have a remarkable facility in language. Many are fluent in one of the two official languages, English or Afrikaans, and, apart from their own home language, can converse in many of the other Black home languages. This is also reflected in the programme, where the participants speak a variety of languages, such as Zulu, Xhosa, Tswana, Ndebele and Sotho., etc. as well as their English or Afrikaans. All participants need to pass in their home language to gain a matriculation. Table 24 shows that in Kwa-Zulu only 89% indicate that they can speak Zulu fluently and that only 82% can write it fluently. This is surprising, as the students in that area are all Zulu-speaking. One may suggest, therefore, that the students are too modest to say, that they are fluent in the language even if they have a full command of it. There may, however, be some immigrants in the area who are not fluent. Moreover, the term "fluent" is not objectively defined. Some respondents may have applied a rigorous standard in evaluating their own knowledge, and did not mark the "high" level of proficiency" responses.

In the Eastern Cape Xhosa is the home language spoken by the Black students, because the two Xhosa-speaking homelands of the Ciskei and the Transkei, the tribal areas from which these Xhosa-speaking originally came, are nearby. The figures 58% and 53% indicated in table 24 are an accurate representation of the students, because there are two Afrikaans-speaking Coloured centres in that area. The two Black centres are slightly larger. In the Western Cape, apart from Xhosa, no other Black languages are spoken by the participants. The figures 26% and 27%, are representative percentages, of those who can speak and write Xhosa because there is only one centre for Blacks in that area where Xhosa is the language used. The people living in this area migrated from the Xhosa-speaking tribal areas of the Transkei and the Ciskei.

All the black participants in the TOPS programme are taught in the medium of English, and their tutors must be fluent in English, regardless of the racial group to which they belong. However, English is a second language for most participants and understandably, fluency in English, combined with different cultures, often makes difficulties in effective comprehension, if they cannot express themselves articulately and coherently.

There is a long and tumultuous history of home language tuition in South Africa, and reference can only be made to it in passing within the limits of this thesis. It is important to note, however, that English is the language now used throughout the Black education system. According to the tutors the participants are at a disadvantage, since they do not command the vocabulary to master some of the more difficult concepts, particularly in Mathematics and Science. As reported by the tutors many of the black participants complain, that they cannot keep up because they simply do not understand. They therefore ask for the lesson to be given first in English, and then in the vernacular. Interesting work was carried out in this field by Tiffen (1969). In his book A Language in Common he makes a distinction between English as a mother tongue, where the basic structures of the language do not need to be taught and English as a second language, where in Africa it replaces the native language outside the home, and an ability to use it which is almost second nature is necessary. Tiffen (pp.14-15) refers to "English-using bilinguals", by which he means people able to use English fully as a means of communication. Few of the TOPS participants have such complete mastery of the language or an ability to use it almost as second nature.

Effects of School and Home Environment

The effects of environmental variables on teaching-learning processes of any type have been examined by educational researchers from various points of view. However, it should be noted that the term 'environment' is not universally employed in studies of all types. Curriculum experts tend to use the expression milieu, and Schwab (1973) considers it as one of the four common places that define an educational situation, the other

three being: the teacher, the learner and the instructional materials. The expression environment has been commonly used among educational psychologists, who studied factors hindering the educational development of children from culturally-deprived families. Bloom (1976) referred to the IEA studies (International Association for the Evaluation of Educational Achievements), which proved that in most countries 20-30 per cent of the achievement variance is explained by the home environment variables. (Walker 1976). Moreover, he proved that substituting the static measures of home environment (such as a measure of socio-economic status, occupation, level of education etc.) by dynamic measures (such as the time parents devote to helping children to do their homework, the contact parents have with the school, the expectations of parents etc), one can explain 50% of the achievement variance by environmental variables.

Educational studies deal mostly with two types of environments: the learner's home environment and the school environment. In studies dealing with adult learning one must also consider the "job environment", since the adult spends a large proportion of his time there. In the present study some aspects of the TOPS participants' home and school environments will be examined. It should be noted, that when speaking about the school in the present context one refers to the job environment of the target population, rather than to their learning environment. The school refers to the place where the TOPS participants work, rather than to the place where the INSET courses are held.

School principals.

The role of the principal in promoting in-service training has been widely recognized among educational experts. Cooper (1967) distinguishes between two such roles. First, the principal has to operate at district level to inform administrative officials about the INSET needs and to persuade them to provide financial aid for such activities. Secondly, at the school level the principal has to identify INSET needs and motivate teachers to take part in such activities. Berman and McLaughlin (1977) found that the support of the school principal constituted a crucial

factor in introducing change of any kind in a particular school. In South Africa, Cawood and Gibbon (1981) studied problems related to the leadership role of the principal. They found that there was a great discrepancy between the time that school principals actually devoted to tasks falling within the category of leadership, and the ideal allocation of time to such work. The figures for the actual and ideal time were 14% and 50% respectively. To reduce this discrepancy, they suggested that principals should give more attention to leadership tasks, such as staff development in schools. The management of the TOPS programme devoted attention to the need to co-operate with school principals in planning the INSET activities for the teachers, for the attitude of school principals effected teachers participation in INSET programmes. Where principals supported and encouraged the teachers taking TOPS courses, the response was always found to be considerably high. Therefore, before any centre begins to operate, it is TOPS policy to call all the principals in the area together, and tell them about the ethos and identity of the programme, and to try to engage them in TOPS activities, on the grounds that staff development is one of their responsibilities as leaders. The participants are also encouraged to discuss TOPS and their interests in it with their school principals.

The scope of the study did not permit thorough assessment of the leadership qualities of the principals. Nevertheless, the teachers were asked to indicate whether they discussed their participation in the TOPS programme with their principals. Table 25 shows the percentage of those who did or did not do so.

The 4% reported in Table 25, who did not discuss their participation in TOPS with their principals, said that they did not do so, because they feared, that the principal would not support them. Generally, however, the principals were well disposed to the TOPS programme, and 96% were very co-operative. Those who did not support the teachers were invariably those who, according to the participants, were themselves under-qualified. Mehl commented on the reluctance of some principals to support TOPS achievement: "The participating teachers even report that some principals load them with extra-curricular activities when they enrol in the TOPS programme" (TOPS, National, 1985b).

Table 25
Students who discussed TOPS with
principals by percentage

Region	Did discuss	Did not discuss	All
Transvaal	99	1	100
Western Cape	93	7	100
Eastern Cape	95	5	100
Kwa-Zulu	100	-	100
TOTALS	96	4	100

Table 26
Advice given to students by principals
concerning TOPS by number

Affirmative and positive				Negative	
Region	Improve qualifications	Better teachers	Must take opportunities	Should not take part	Total
Transvaal	61	7	17	2	87
Western Cape	49	3	1	-	53
Eastern Cape	74	2	2	1	79
Kwa-Zulu	73	3	12	1	89
TOTALS	257	15	32	4	308

One may deduce, therefore, that they were insecure and resented the fact that their teachers would become better qualified than they themselves were. Those few who were negative and unsympathetic to the teachers'

aspirations insisted that the teachers' extra curricular activities should take precedence. Some principals were obdurate, even though the regional co-ordinators were at great pains to ensure that the TOPS lectures did not begin until the early evening, when school duties were finished. As shown in table 26, most principals encouraged the students, but stressed the need for increased qualifications rather than giving such reasons as 'making themselves better teachers'.

A possible reason for the principals stressing the academic aspects of the courses rather than the didactic or methodology courses may be that information about didactic courses had not reached them, and they were not aware of their existence.

Distance from centres.

Travelling to and from school and the difficulties resulting from it have been examined in educational literature from two different points of view: the financial aspect and the psychological aspect. The matter of school transport became one of interest in the U.S.A., when arrangements were made in several school districts to transport children to school at some distance from their homes, with the purpose of promoting the integration of children from various socio-economic and racial groups. Mills (1979), for example, discusses divergent opinions of social scientists and political and educational leaders about the question of "bussing". While problems related to the travelling of young school children are not relevant to the TOPS programme, nevertheless, one should consider the cost in time and stress of travelling to educational centres far from the learner's home and place of work. Problems of travelling to the TOPS centres were encountered in Kwa-Zulu and in the Western Cape. In the urban areas it was necessary to hold the classes during the late afternoon to early evening, so that the participants, particularly the women, could get home before dark. Most townships, in which TOPS operates, have no street lighting. In rural areas such as Kwa-Zulu some students had to travel up to seventy kilometres in a return journey to attend lectures. Often this raised severe transport problems and according to co-ordinators, was an important cause of poor attendance and drop-out. Mehl reported that tutors frequently need to repeat previous lessons because a large percentage of participating teachers were absent. Regular progress is thus difficult. (TOPS, National, 1985 b).

The programme organizers had originally intended, that the course participants should be drawn from a group of schools in the immediate vicinity of a centre. Unfortunately this was interpreted very loosely by the regional co-ordinators in Kwa-Zulu and the Western Cape. The result was, that in areas like Kwa-Zulu with its large rural population the opportunity to study through TOPS was extended over a very wide area. Some participants came from as far as fifty kilometres to register and to collect the free study materials, and then they disappeared until the examinations. They never attended the tutorials, though one assumes that they studied at home using the TOPS materials.

In the urban areas the students had short distances to travel, and the problems encountered were usually concerned with the availability of transport.

Table 27
Distance from centres for TOPS
students by percentage

Region	-10	11-19	Kilometers 20-29	30-39	40-49	50-59	All
Transvaal	92	3	4	-	1	-	100
Western Cape	100	-	-	-	-	-	100
Eastern Cape	96	2	2	-	-	-	100
Kwa-Zulu	69	13	2	6	8	2	100
TOTALS	92	3	2	1	1	1	100

Data in Table 27 clearly indicate, that to a great extent the centres conformed to the planned model of TOPS. The centres were based in a secondary school in the community round which the satellite junior schools of the TOPS participants were situated. There was a total of 92% conformity. In the Western Cape 100% of the target population came from the vicinity of the centres, and in the Eastern Cape and in the Transvaal there were also high proportions (96% and 93% respectively) of persons living near the centres. This indicates that the schools were central to the communities. The 8% in Transvaal and the 4% in the Eastern Cape who came greater distances may be accounted for by the fact, that these people married and moved to other townships after joining TOPS courses. The Kwa-Zulu figures show that the centres did not correspond to the projected model. In reality this referred only to one centre, at Mtunzini, which was primarily rural in character. The figures show, that only 69% came from the vicinity of the centre. Since Mpumalanga corresponded to the planned model and also accounted for 50% of the participants. One may assume that at Mtunzini only 19% came from the immediate vicinity, and the rest of the participants came from remote villages at varying distances. There was a request, from both participants and tutors, that the centre at Mtunzini should be split up and a sub-centre opened at Emoyeni some fifty kilometres away, which would greatly cut down the travelling. The tutors offered to make the journey instead.

Home and family circumstances.

Obviously studying at any time and at any level while teaching full time makes heavy demands on a teachers' stamina and resilience. It is also obvious, that the rest of the family cannot remain unaffected by the commitments; and it is desirable, if not necessary, that the family of a teacher who is studying should give support and encouragement.

Table 28 classifies the difficulties encountered by the participants in their homes. In this study special reference is made only to 'lighting' and a 'quiet place to work'. Nevertheless, these two items may be taken as indicative of whether the home environment is conducive to learning or

not. It is surprising that only 8% complained that they had lighting problems, since many of the townships in which TOPS operates has no electric lighting at all. This is true also of some of the schools. For many Africans in Kwa-Zulu the usual lighting is kerosene lamps. Although there were few complaints, this lighting is hardly adequate for study.

Table 28

Problems of home environment by percentage

Region	No light	Not quiet
Transvaal	16	35
Western Cape	4	10
Eastern Cape	10	11
Kwa-Zulu	3	16
TOTALS	8	18

It is likely that the proportion of those without adequate lighting is much higher. With regard to the data about whether the students had a quiet place to work or not, it must be borne in mind, that the housing of most Africans in the townships is extremely small and modest, and in many cases below the standard that would be accepted by Whites. Some of the participants in the rural areas of Kwa-Zulu still live in African Huts, and though their proportion is very small, it indicates the conditions in which some of them had to study.

By contrast, the housing of most Coloured people tends to be better than that of the Black people. This may account for the high proportion of people (96%) in the Coloured communities in the Western Cape, who had adequate lighting.

Descriptive Supplicative Information

The previous section of this report contained descriptive factual information. The expression "factual information" was used to denote phenomena that can be corroborated by inspecting observable objects or actions. Thus, for example, information about age, previous education, or difficulties encountered at home, may be verified by inspecting available documents or by site visits. Although the information was derived from self-reports provided by members of the target population, it may still be verified by information obtainable from external sources. It was found useful to distinguish such factual information from information concerning feelings, desires or wishes, which are externally non-observable and also non-verifiable phenomena. A subject's own statement that he 'suffers from anxiety when writing a mathematics test', or that he would 'like to study Geography', may be true or false, but the truth value can hardly be proved by information from other sources. The information belonging to this second category dealt with matters of a suppletory nature i.e. requests and desires. These were therefore labelled 'suppletory information'.

The distinction made between factual and suppletory information seemed to be pertinent to the work not only because epistemologically they represent different realities, but mainly because they fulfil different functions in the evaluation study.

While factual information provided in the present study served the purpose of examining congruence between the programme-related intentions and reality (Stake 1967), the suppletory information summarized in this study served the purpose of facilitating "mutual adaptation" between existing programme elements and the expectations of the target population. The concept of mutual adaption became crucial in programme planning and execution (Fullen and Pomfret, 1977), and is considered by distinguished curriculum experts as one of the techniques that may facilitate the success of a programme (Blum and Grobman, 1985). It should be noted that by no means were these suppletory statements considered as those representing actual needs. Skager's (1978) distinction between demand and need

need was adopted. A demand may be expressed in a highly assertive way, nevertheless it does not necessarily represent a social need, or even a true need of the person making such a demand. The motive of the evaluator in inviting supplicative statements was the willingness to establish communication between programme planners and users, which may constitute a modest step in establishing a pattern of mutual adaptation. The participants in the TOPS programme appeared at all times to feel free to speak about problems and revealed a willingness to suggest improvements. It has been already stated that the learners themselves, as well as all concerned in the experience, constitute a very valuable source of recommendations for the improvement of their programme of studies. Their views were therefore canvassed by questionnaires, interviews and discussions. This provided useful diagnostic statements, recommendations and expectations for change.

According to Yarger's (1982) classification of INSET related research these supplicative statements will be grouped in three clusters: (1) Content (2) Classroom activities and (3) Organizational aspects of the programme.

Content

Yarger (1982) says that when teachers are developing an INSET programme, they put the focus on pedagogical skills, while college-initiated programmes deal more with matters of general education. This is primarily true for the U.S.A. Within the framework of TOPS, matriculation courses were offered in the main school subjects. Most participants in the TOPS programme thought that the list of subjects offered by the TOPS programme was too narrow and restrictive for their needs. It is likely that many of them went to other programmes and agencies for tuition in the subjects that TOPS did not provide.

The view expressed by the TOPS participants was, that without detracting from the importance of subjects already offered, the following subjects should be added: History, Geography, Business Economics, Zulu and Xhosa.

The participants believed that these subjects would be easier to pass than Science and Mathematics. Many had not studied for many years and had lost contact with Science and Mathematics. It is understandable then, that they wished to tackle the easier subjects. They considered that the vernacular languages, such as Zulu and Xhosa should be introduced, because apart from the fact that it was necessary to pass examinations in the home language to get through matriculation, for them a home language would be much easier to pass. It was proposed that Xhosa should be introduced in the Eastern Cape and Western Cape, where Xhosa-speaking people predominate, and that Zulu should be introduced in Natal (Kwa-Zulu) where the Zulu-speaking people predominate. This would have presented no difficulty. In the Transvaal, however, many vernacular languages are spoken, of which Xhosa and Zulu are only two. It did not seem to be feasible or financially worthwhile, therefore, to introduce all these languages into one centre to accommodate minority groups. It would have been equally difficult to exclude some.

As indicated above, the participants thought that the programme was not self-contained, and not all of them needed the subjects that TOPS was offering. Rather than enrol for the so-called "difficult" subjects of Mathematics and Science, they enrolled at other centres offering a matriculation programme in other subjects. Inclusion of these other subjects was the cardinal request of students at all centres. These requests were substantiated by their tutors and confirmed by the regional co-ordinators.

Additional components.

The participants on the TOPS programme considered that there was a need for other courses to be introduced in addition to the academic component, and showed interest in a Methodology of Teaching course and in a Management course. They thought that it should be open to the whole school staff, not just to the principals, and that it should be a school-based residential weekend seminar.

The reason was that, while the participants thought that they could learn many techniques from a good tutor, there were other important areas

besides actual teaching duties in which they felt the need for development. Since all the teachers in a particular area had similar problems, they believed that sharing experiences and discussion of common problems would benefit them greatly.

It was also indicated that there was a need for a study skills course, which would help the TOPS participants to cope with the conflicting demands of employment and study, help them to make personal timetables and year-planners, and to learn how to develop filing and record-keeping systems. It was suggested that such a course should also cover study techniques. Many students reported that they had difficulty in concentrating and an inordinate fear of assessment and examinations. They suggested a course of one hour a week to help them to overcome these difficulties. Some also expressed the desire for techniques of self-assessment, overcoming stress and preparing an examination programme routine.

Such a demand was put forward by Volmink (1985) saying, that it is a well known fact that among the black community in South Africa most students have no understanding of the difference between atomistic or holistic approaches to learning and are used only to rote learning as opposed to learning with understanding, revision and consolidation.

Tutors also reported that the participants themselves were aware, that they lacked basic skills in reading, note-taking and writing. They needed to know how to use the text-book, to skim and scan, to "speedread", to make use of library resources, etc.

This indicates that the participants took a very positive attitude to their studies, and were prepared to look critically at both their own shortcomings and those of the TOPS programme, which they considered was not addressing their needs as well as it might. They were invited to be constructively critical.

Combining study components.

The original conception of the TOPS programme was that the academic component should be completed first, and then when the participants had attained qualified status through matriculation, the methodology (didactic) component would be introduced in much the same manner as the academic component.

Some tutors and participating teachers expressed the opinion that because of the lack of time at the disposal of the TOPS participants and the influence of home and school, the methodology classes should take place separately to the academic component during residential weekends. Such a method they thought, would expose them to a concentrated course of lectures, and that a great deal of work could be covered in a very short time. In the opinion of the co-ordinators a great incentive to the participants in the method would be, that they would be brought out of the townships and boarded in hotels with good conference facilities. They would also be captive audience and away from possible interference by family and school.

At the weekend methodology seminars on didactics, which did take place in accordance with this suggestion, there was 100% response from the participants. There were many more applicants than places available. The departmental officials who attended expressed satisfaction with the seminars and the quality of the materials that had been produced. Inspectors and principals also attended, and agreed to conduct follow-up activities in the classrooms to assess changes in teaching behaviour and improved competence.

The tutors also thought, that there should be some system of follow-up and renewal in the classroom to establish, whether what had been learned with TOPS was proving effective in the classroom. The suggestion that the inspectors and the principals, as well as TOPS tutors, could take part in this indicated a very realistic and positive attitude. Follow-up activities would then ensure that some evaluation and assessment of progress was made. Otherwise there could be no guarantee that the costs entailed would be offset by a gain in effectiveness.

There is no data at present to show, whether TOPS had any considerable impact on improving classroom performance. There is evidence to suggest, however, that it increased a concern among many participants to develop both academically and professionally, and that it gave them new insights, a new sense of awareness, improved qualifications and status, and greater confidence to make decisions.

Supplivative Statements Related to Classroom Activities

Most existing studies of teaching effectiveness focus on classroom activities. They encompass a wide variety of behaviours, such as style of teaching, teaching strategies employed by the teacher, the communication pattern in class etc. Variables pertaining to this category explain a considerable proportion of the variance in the effectiveness of teaching (Medley, 1977). In this section supplivative statements appearing in the questionnaire of the TOPS participants are summarized.

It should be noted that the description of actual events occurring in the classroom are not dealt with in this section. Actual process variables observed during the carrying out of the programme constitute an important subject of this study, and they will be dealt with in the section on implementation.

Since this section reports on supplivative statements made by the respondents written in the questionnaires, one should not assume that the matters discussed here constitute the most crucial aspects of classroom activities. Moreover, one cannot assume that these problems appeared to be the most important ones in the eyes of the respondents. One should rather believe that the respondents made requests that, in their opinion, could easily be answered positively by the programme planners. They represent requests on behalf of the participants that demand immediate action.

Surprisingly enough, the TOPS participants, who presumably are themselves experts in teaching, made very few comments about teaching styles or strategy.

They rather commented on technical and organizational aspects of classroom processes. Most requests dealt with pacing, provision of feedback, organization of the classes, and the study materials used. These topics will be dealt with here.

Pacing.

Experienced teachers know that to try to cover too much ground too quickly is detrimental to learning. The TOPS tutors were mostly experienced teachers, and one may assume that they were aware of the difficulties facing the participants caused by lack of prerequisite knowledge and study skills. One may also surmise that they were sympathetic to the participants' requests, since they often had to strike a balance between the needs of the subject and the needs of the participants. Currie (1965) puts this point succinctly: "a class teacher has commitments in two clear directions: to the needs of his pupils and to the developing scholarship of his subject. He is a kind of Janus figure uneasily placed between what his pupils need and what higher scholarship in his subject produces" (Currie 1965, p.5).

In some cases tutors did not regard the syllabus as a guide for ordering the content and sequence and defining the interim and final objectives. Judging from the participants' replies to the questionnaires, it was seen as an end in itself, and its function as a guide or starting-point was forgotten. Strevens (1977) presents this point concisely:

that which is selected for teaching is regarded as a minimum, not a maximum, and is expected to be supplemented by much additional, unspecified and relatively uncontrolled materials which the learner will meet in his reading and listening.

(Strevens, 1977, p.7)

Table 29 indicates the number of participants who considered that the pacing was accelerated, and that they needed more time for study. Accordingly, they indicated whether or not they wished to extend the period of tuition time and the preparation time for the matriculation examinations.

Table 29
Students requiring extra tuition time by percentage

Region	Positive	Negative	Totals
Transvaal	40	60	100
Western Cape	19	81	100
Eastern Cape	40	60	100
Kwa-Zulu	39	61	100
TOTALS	33	67	100

Apart from the participants in the Western Cape, where only 19% wished to extend the period of tuition time. The percentages of positive requests across various study centres was almost the same. The reason suggested for the distribution showing only 19% in the Western Cape is, that only Black teachers in the Western Cape wished to extend the period of study. The Coloured teachers wished to complete their studies in the shortest time possible, i.e. one academic year. One suggested reason for being motivated to complete their studies in a short time is the fact, that they have a powerful and highly interested teachers' union, the Cape Teachers' Professional Association. This union has a very positive attitude to TOPS and to INSET generally, and it did much to encourage participants by offering a wide range of support services to its members. If one excludes the figures for the Western Cape, therefore, the average for the country is about only 60% who did not wish to lengthen the period of study. Participants gave several reasons for wishing to extend the period of study. These are shown in Table 30.

Table 30
Participants' reasons for requiring extra
tuition time by percentage

Region	Large curriculum	More time needed	Travel related problems	Total
Transvaal	40	42	18	100
Western Cape	20	39	41	100
Eastern Cape	40	60	-	100
Kwa-Zulu	43	40	17	100
TOTALS	29	46	25	100

The percentages were calculated according to the number of reasons listed. They do not reflect the percentages of persons giving such reasons.

Note that the first two responses listed in Table 30 are very vague and have little informational value. They merely repeat the assertion that there was a need for more time. In the Transvaal, Western Cape and Kwa-Zulu a large proportion of the respondents indicated that they had travel problems, and that was why they needed more tuition time. In the total population 75% of the reasons stated refer to the overload of work. The 29% who wished to extend the period of study because of a large curriculum, one may assume, were those who had over-committed themselves. There is evidence to suggest that they were doing three subjects with TOPS as well as other subjects either privately or with another agency. This is borne out by Mehl, the regional co-ordinator for the Western Cape who indicated in a survey that many TOPS participants also enrolled at other courses offering other subjects, and tend to over-extend themselves. (TOPS National, 1985b).

It is difficult to predict whether the extension of tuition time may be an effective device for increasing the examination passes of the participants. Recent research points out the contribution of time on the study task to the achievement level of the learner (Bloom 1976), and one may assume that in the context of TOPS, too, the extension of the study time may increase the number of successes in the examinations.

Testing and assessment.

The use of formative evaluation tests examining the learners' mastery of a certain learning unit is described by Bloom (1976) as one of the most powerful methods of increasing the attainment of prescribed instructional objectives. Bloom designed a teaching strategy known as "mastery learning", according to which the learners are examined through formative learning tests after completing a small unit of instruction (8-10 hours of study), and those who fail the test participate in corrective lessons, before they are allowed to proceed to the next unit of studies. Bloom demonstrated that by regularly and frequently using formative tests one can reduce the learners' test anxiety, and also create a favourable attitude towards studying a subject.

In the TOPS programme the study of various subjects was accompanied by regular interim testing although the concept of "formative testing" or "mastery testing" was not introduced.

Information on testing and assessment was gathered through site visits, discussion with tutors and participating teachers, observation and reports by co-ordinators and tutors. To begin with, there had been regular termly examinations from which there was mass absenteeism. Many participants did not turn up, and subsequent discussion revealed that there was an inordinate fear of examinations among them. The following statement by Mehl typifies the situation in all the centres of the TOPS programme: "Candidate attendance is irregular in many cases even sporadic, with a very marked upswing just before examinations" (TOPS, Regional, 1985b).

A request was made by participants and strongly supported by the tutors that instead of the full-scale examinations, testing should be organized on a regular basis, so that after each section of the work short sharp questions of a revision type could be asked. This would have the effect of re-inforcing what the participants had been learning and show up any shortcomings that needed to be addressed. Such testing, it was suggested would ensure that the whole syllabus was explored and could be combined with revision periods, which tutors tended to overlook in their enthusiasm to cover the syllabus in time.

The tests to be used at such interim periods may be constructed according to guidelines prescribed by Bloom, Hastings and Madaus (1971).

Organizational Aspects of the Programme

Supplicative comments made concerning the organizational aspects of the programme touched upon the organization of the learning and upon management of the whole project. Although in many cases the distinction between classroom activities dealt with in the previous section and organizational aspects of the learning seemed to be arbitrary, nevertheless for practical reasons these two aspects were handled separately. First, matters that were the direct concern of the teacher were treated, while matters to be decided upon at central management level were dealt with later.

Accommodation.

Morant (1981) advises a discerning look at accommodation and suggests that

It is hardly necessary to be reminded that school premises are not always the most convenient, comfortable or professionally motivating places to undertake in-service study, particularly if teachers are expected to attend voluntarily in their own time. Investigation of possible in-service venues may therefore require, looking at accommodation in neighbouring schools, teachers' centres or colleges, and even buildings of non-educational organizations such as a conference centre, industrial premises, public library or hostel.

(Morant, 1981, p.97)

The settings for TOPS classes were generally considered to be satisfactory. They were based for the most part in secondary schools or in training colleges. There were complaints however, that participants would often arrive at the place to find it locked, or that certain rooms were locked. The co-ordinator was invariably miles away at another centre or even at home. Classes were then missed or held in very undesirable surroundings such as cloakrooms, or in the corridor, or the classes were simply cancelled. This again stressed the need for somebody to attend to such day-to-day problems as they arose. Such matters were further exacerbated when the tutor was delayed or did not turn up, and there was no one to make alternative arrangements or replacements. In some centres the place was not suitable; either it was dirty, or noisy because it was also being used for other activities. In one centre in the Transvaal TOPS classes were organized to take place in a junior school where the adult participants, themselves teachers, had to sit at primary school desks. This was not conducive to study, and one may presume that such arrangements hampered learning.

Timetable difficulties.

The participants and tutors complained that to cut down on travelling and administration, the regional co-ordinators, responsible for the scheduling and administration of the centres in a region should cut the number of tuition days to the minimum. In some cases, instead of having 2 X 1.5 hour sessions of tuition per subject, the three hours were combined together. The result was, of course, that this raised all sorts of difficulties for the participants, apart from the fact that they found it extremely difficult to concentrate for three hours' tuition at a stretch. Requests came from the participants, and were generally supported by the tutors, that the timetable of subjects should be spread out more evenly over the week, so that instead of three hours for a subject on one day, it could be spread out over two days or even three days. This, it was thought, would greatly help those participants who were doing three subjects.

There was a request that more time should be allocated to the subjects, particularly in Mathematics and Science, i.e. 4.5 hours a week instead of three.

The timing of the lessons was also considered to be causing difficulties for some participants, because they were held too early in the afternoon. They had out-of-school activities to attend to such as choirs, school clubs and so on, and either they could not get away from school on time, or the lessons were missed, or they came late, because they had too far to travel. The alternative arrangement, that of lessons starting late, was also causing difficulties, because they had transport problems or had to go home in the dark on winter evenings. This was a frequently repeated cause of concern to most of the older women teachers. There was a widespread feeling among the participants that their needs were being considered last, and that the timetables were being arranged not to suit them, but to suit the co-ordinators and the tutors. They thought that the co-ordinator should delegate the responsibility of timetabling in each centre to a responsible tutor, so that he could attempt to make special arrangements, rather than comply with one central policy delegated from above.

The target population.

At a meeting of the regional co-ordinators in July 1984 it was requested that the target population should be widened, so that the TOPS programme could be opened to all principals and teachers in the primary schools. The reason was that principals without matriculation had a very poor self-image, and the experience of the co-ordinators was that they created difficulties for several teachers taking part in the TOPS programme. It was considered that this attitude could jeopardize the programme. Allowing principals to participate would help to alleviate the difficulties that the teachers encountered at school. Such a policy, it was thought, could lessen friction, avoid loss of TOPS tuition time, and present disappointment on the part of the participants. Moreover, the co-ordinators reported that in both Black and Coloured primary schools, teachers in the lower standard (Sub A to Standard 2) are, on obtaining matriculation, invariably expected to teach the higher standards and thus fall into the target population of the programme. Furthermore, it was indicated by the co-ordinators, at a meeting held in June 1984, that according to their experience those few Sub A to Standard 2 teachers, who

had been enrolled on the TOPS programme were the most highly motivated, involved and committed learners. (TOPS, National, 1984).

Discussion with participants further indicated that there is very great mobility within the primary school, i.e. teachers are expected to teach in both the higher primary and the lower primary, and are not necessary confined to one area or the other. It was thought, therefore, that insistence on offering TOPS exclusively to teachers in Standards 3,4 and 5 would create resentment among fellow-teachers in the lower standards of the same school, who would feel that they had been ignored.

Grouping and tutoring.

The problem of grouping is most frequently a question of policy, and is treated at either the programme level or the district level. Nevertheless decisions about grouping can also be made at the school level. Moreover, an individual teacher may decide to organize the class teaching according to small group setting.

Because of the heterogeneity of the TOPS classes several tutors and participants requested, that some kind of grouping should be introduced, so that two groups could work in the class at the same time and proceed with their studies according to their actual attainment. Another request was for the provision of tutorial help for those who encountered difficulties in some parts of the study materials.

The question of grouping and tutoring has given rise to an extensive literature, and decisions should not ignore relevant findings. It should be noted, that all over the world the practice of ability grouping in primary schools has recently declined. The cause of this decline is political rather than educational. It was found that ability grouping reintroduces racial and socio-economic segregation in desegregated schools (Rosenbaum, 1980). But from a pedagogical point of view, too, research does not provide conclusive evidence about the advantages of ability grouping (Bolvin, 1982).

Nevertheless it may well be, that research on ability grouping is not relevant to the requests made by the TOPS tutors and participants, since they concern themselves with grouping according to prerequisite knowledge rather than ability.

As for the practice of tutoring, one has to distinguish between at least two types of tutoring patterns: professional or para-professional tutoring, and peer-tutoring. In the first type, one may employ teachers or para-professional aids or para-professional volunteers. Ellson (1976) recommended that they be provided with highly structured corrective materials. On the other hand Bloom (1976) recommended the use of peer-tutoring of students who mastered a certain learning unit, and then tutored their classmates under the supervision of the class teacher.

Within the TOPS project serious consideration should be given to introducing tutoring in one form or another.

Human and physical resources:
banking and secretarial.

Morant (1981) draws particular attention to the need for adequate resources on INSET programmes, both human and material. On the need to set up infrastructures to enable the programme to run smoothly. He says:

It is clear that in-service work, whether related to the needs of teachers in particular schools or not, will only make headway if appropriate and adequate resources are allocated. Well before a ... programme is launched, in the planning stages it will be necessary to establish what resources can be drawn upon, and to decide where or when to deploy them.

(Morant, 1981, p.95)

As the TOPS programme expanded, there were requests from the tutors and co-ordinators, that TOPS should provide support services in the form of human and physical resources, which could assist the programme to operate more efficiently in the regions. For example, there was a request that TOPS should establish a regional office with a full secretarial infrastructure, where the tutors of each centre would have facilities for

duplicating, photocopying, hiring such equipment as video recorders, O.H.P.s and cassettes, and where there would be secretarial help. The regional co-ordinators and the tutors, considered that this would facilitate administrative action and make the whole organization of TOPS much more efficient and cost-effective. The office would not only be a place where tutors could meet, it would also serve as a resource centre for books and materials, and be the hub round which TOPS revolved in a region. The tutors suggested that a full-time secretary should be engaged, who would be paid a competitive salary and have all fringe benefits such as pension and medical aid. She would be responsible to the regional co-ordinator for organizing all regional committee meetings and tutor meetings and would be in constant touch with head office and with the regional chairman.

Another urgent request was for banking facilities and regional budgets. The regional committee considered that it was desirable that regional bank accounts should be opened to allow for day-to-day expenditure in the regions under the signature of the regional co-ordinator and chairman. Such a facility would, it was suggested, eliminate the time-consuming efforts of contacting the head office of TOPS. Accounts could be kept and regularly submitted to head office on standardized accounting sheets. Regional committees wished to take this a step further, and requested that a proposal should be made to the national committee to give the regional committees much more autonomy of operation within broad general guidelines. It was suggested that budgets should be worked out for the regions and that this money should be paid over to the regions to operate with. They would provide detailed quarterly accounts to the head office accountants. Salaries and travel allowances could still be paid by the head office, but all other expenditure would be made by the regions against the budget.

Relations with Education Departments.

It was the opinion of many people in the programme, the participants, the tutors and the co-ordinators (an exception was the Western Cape co-ordinator) that there was insufficient co-operation with the Education

Departments in the TOPS Programme. The Western Cape co-ordinator supported the general opinion of the national committee, that TOPS should not involve the Education Departments, but should at all times preserve its own ethos, identity and autonomy. The co-ordinator for the Eastern Cape, however, thought that TOPS should organize courses in collaboration with the Education Departments. (TOPS, National, 1984).

The two Departments with which the TOPS programme had to negotiate are the Department of Internal Affairs (now Department of Education and Culture) for Coloured people and the Department of Education and Training for Black people. The Department of Education and Training was at first very suspicious of a programme wishing to operate in isolation from the Department, but after convincing themselves at the highest level, that the programme was a sincere and positive attempt by professional people from education and the private sector to help the Department in a key area of teacher-upgrading, they became more co-operative.

The Department of Internal Affairs permitted the programme to operate only through the Coloured teachers' organization, the Cape Teachers' Professional Association, and regarded TOPS as a providing agency. Discussion took place among the tutors and the co-ordinators during 1984 to debate the advantages or disadvantages of having Departments of Education involved. It was decided that to involve the Departments could only be advantageous provided that they did not try to take the programme over or direct its activities. The reasons put forward in support of involving the Departments were:

1. The methodology component would not be permitted to be put into effect unless members of Education Departments were involved and kept fully aware of the contents and the methodology to be used.
2. The Education Departments could provide valuable incentives to teachers by their interest and involvement.
3. The Education Departments could provide very useful follow-up activities.

National and regional committees.

There were requests for re-organization of the national and regional committees. The national committee had been meeting once in two months since the inception of the TOPS programme, but it tended to be rather unwieldy, and the mixture of educationists and members of the private sector often prolonged discussion so that many important matters were never thoroughly discussed. It was suggested, therefore, that two sub-committees should be formed, an education sub-committee and an executive committee, both of which would report to the full national committee twice a year. This, it was thought, would speed up the decision-making process because all educational issues would then be discussed by educationists at the education committee and presented to the executive committee for decision.

The regional committees also required changes because in the opinion of the national co-ordinator, based on his experience of serving ex-officio on them, some were not comprehensively constituted. They did not sufficiently represent the private sector of commerce and industry, and were composed heavily in favour of the teachers' unions and of the universities. A proposal was put to the national chairman in April 1985, that the regional committees should be strengthened and expanded by dynamic people from commerce, industry and local business, so that all would become involved in the TOPS programme.

Regional co-ordinators and senior tutors.

It was mentioned earlier, that the attention of the regional committees was repeatedly drawn to the fact, that the position of regional coordinator was impossible to fill, but that this was not a reflection on the ability of those concerned. Each region had several centres that constantly required his attention. Regional coordinators were part-time appointments and problems arose, when the co-ordinator had insufficient time to attend to the problems in several centres at many kilometres distance from each other. There were continual breakdowns in communication, and the tutors and some participants in the various

centres did not consider, that it was possible for a part-time person to attend to all the problems of all the centres in a region, or even to represent all the centres at the regional committee level. Requests were made, therefore, for a different hierarchical structure to be instituted, so that a person might be appointed in each centre as a senior tutor because, as indicated above, the practical nature of the part-time coordinator's position made it impossible to adequately to administer up to four centres in a region and attend to all their problems and responsibilities. In each school, where the centres were operating, it was recommended by the National Coordinator that the principal should be invited to become the senior tutor of the TOPS centre. This was supported by the tutors.

It was suggested by Leonard (TOPS, Regional, 1984) that the position of senior tutor should be elevated in every way to correspond to the level of authority and autonomy of head of an adult evening institute. The senior tutor would then be responsible in every way for the day-to-day administration of all the teaching duties and timetables, and the general smooth running of the centre, in the same manner as a prudent principal. It was also requested that these senior tutors should be invited to become members of the regional committees, so that they themselves could answer directly to them on all aspects of the centre for which they were responsible. They would present a monthly report on the activities of the centre, its successes, difficulties, attendance and tutor performance. They were also to be paid a salary commensurate with their responsibilities and to have a great deal of autonomy and authority. The centres would, it was thought, become much more dynamic and streamlined

(TOPS, Regional 1984).

With the development and expansion of the programme, it will be necessary to consider the appointment of full-time regional directors, who can devote all their attention to overseeing and directing its activities regionally.

Participant representation on TOPS.

The efficiency of in-service training is largely dependent on the teachers' share in its planning and management. The teachers should by no means be passive recipients of wisdom communicated to them by superior professionals. The research literature reports on several attempts to engage teachers in planning INSET activities. A series of needs-assessment studies tried to establish a pattern of collaboration with teachers. Farnsworth (1981) asked elementary-school principals and teachers to set out according to priority 24 possible professional growth methods, and found that the first priority was "workshops" at school. Monroe (1981) conducted a needs-assessment study to find out the perceived needs of reading specialists. Beyond the routine needs-assessment study a greater involvement in planning was achieved by establishing collaborative links between schools and universities.

Moreover, Wheeler (1982) tried to use teachers as assistant lecturers in an in-service training programme managed by teachers, and demonstrated that teachers jointly with teacher educators successfully planned, developed and carried out an in-service programme. Studies from abroad provide evidence about the value of collaborating with teachers in planning and carrying out INSET programmes, and it is therefore not strange that within the framework of TOPS attempts were made to make greater use of teachers in the management of the programme.

There was a feeling among TOPS participants, moreover, that the hierarchical structure down as far as the tutors was fine. They were aware that there were frequent tutor meetings attended by all the tutors in a region and chaired by either the regional co-ordinator or the chairman of the regional committee. The participants, however, thought that insufficient cognizance was taken on the very valuable contribution that could be made by elected representatives from among the participating teachers from the communities concerned. This supports Thembela's statement that those who run educational programmes often have preconceived ideas about the needs and circumstances of Black people and run what he calls "a White programme for Black people "(TOPS, National, 1984).

The importance of participant representation on the programme, especially during times of township violence and school boycotts, was underlined by discussion with the tutors and course participants. They believed that they could do much to influence the attitude of the communities, who had rejected and alienated themselves from the education system and were mistakenly viewing TOPS as an agent of the system that they had rejected. Their involvement, they believed, would enable the programme organizers to effectively judge the groundswell in the communities so that radical adjustments could be made to the programme to enable it to continue to run efficiently in spite of the school boycotts and unrest.

Study materials.

Study materials in the five subjects English, Afrikaans, Physical Science, Mathematics and Biology were given to TOPS participants gratis. These materials were ordered in bulk and distributed to the regions as requested.

The materials for the methodology (didactic) component were prepared at the University of Cape Town, apart from Afrikaans, which was prepared at the University of the Western Cape. These materials were also given gratis to the participants at the methodology seminars.

The participants appreciated the scarcity of the books and of valuable resource materials, and were the first to suggest that positive actions should be taken with those, who dropped out of the programme at an early date and took materials and books with them. They considered that such behaviour was depriving other potential participants, and was a selfish and unprofessional attitude.

The co-ordinators and the tutors were even more vociferous, because books and materials were their responsibility. Addison, the Transvaal co-ordinator, suggested that the students should be asked to make a larger financial contribution to the purchase of the books. She believed that they would appreciate them more if they had to pay for them, it would also prevent their taking books unnecessarily, and it would get rid of the need for co-ordinators to collect books. According to Xaba, the co-ordinator in Kwa-Zulu, "students should not be issued with books until the courses have started. They should then sign for the materials and be thus 'pinned down' to return them. The sanctions to be imposed on those students who collected books and then disappeared should be that they should be frightened by sending letters of demand through a solicitor." Mehl, The Western Cape co-ordinator, thought that participants teachers should be asked to sign a contract (TOPS, National, 1984).

There are no data to indicate the amount of materials lost to the programme in this way, but one must assume that those who did drop out took their materials with them. The TOPS participants knew and appreciated that teachers studying with TOPS are given expensive books and materials, and pays nothing towards tuition fees. The tutors and co-ordinators considered, that if participants were to pay 10% of the total fees in purchasing materials, it would be acceptable to everyone. It was also thought that the participants would have greater commitment if, they did not get everything for nothing. It should be made clear, that it was not merely a question of trying to get money from the participants but rather one of getting them to take a greater responsibility for their own education by making a more positive contribution. Once the 10% fee had been paid the participants should be allowed to keep the materials. While one may agree with the Kwa-Zulu co-ordinator's remarks about 'pinning the students down', the suggestion

of legal threat was considered by all concerned to be too harsh, because it might well harm the image and repute of the programme.

The Western Cape co-ordinator's idea, that the participants should be asked to sign a contract, while more acceptable, was also rejected on the grounds that one could hardly hold them to a contract, when they had difficulty in keeping pace with the studies. It was agreed, however, that it would be a great incentive for them to return the study materials.

Distance tuition.

The centres in Kwa-Zulu served an essentially rural community. In the Mtunzini centre some participants had to come very long distances. The difficulties that distance made for them have already been discussed. The strategy put forward by the Natal African Teachers' Union and taken up for discussion at the Natal regional committee, on which many members of the union sit, was that in view of the rural nature of the programme in Kwa-Zulu, a different kind of organization should be introduced. It was suggested that instead of bringing the participants to lessons six days a week, and to avoid all the travelling and other difficulties that this created, it might be better to scrap this system, and instead bring the participants to the centres on a residential basis for two weekends a month and to combine this with distance-learning. There would be no question of TOPS providing accommodation. The participants would be expected to arrange that themselves at the homes of families and friends in the nearby townships. Such a system, it was suggested, would have the advantage of taking the participants away from their environments and home and family problems, and they would be a captive population. It was considered that much more work could be covered in this manner, and the system, which had been introduced by other agencies and found to be successful in other areas of Kwa-Zulu, would have the unqualified support of the teachers' union, which would in turn encourage the teachers in every possible way.

Although no distance tuition was ever envisaged for the TOPS programme, it was proposed by tutors and the participants in the rural areas of Kwa-Zulu that consideration should be given to this, so that there could

be a combination of distance learning with personal contact. In Mpumalanga many students came from villages near the centres, but they were still remote because of lack of adequate transport, and accessibility, therefore, posed a problem.

The suggestion referred to earlier by members of the Natal TOPS committee, who were also members of the Natal African Teachers' Union has reference, viz. to establish a teaching system based on one weekly meeting supplemented by distance/learning materials instead of TOPS providing five times three-hour sessions a week for the various subjects.

Process-Related Evaluative Information

In dealing with innovative educational programmes, Goodlad (1977) elaborated upon gaps that may occur between the intended and the actual processes and outcomes of an educational undertaking. Goodlad specified a series of gaps that may eventually cause a wide discrepancy between the ideal version of a programme and its actual execution in class. First, gaps may appear between the rationale of a programme and its operational guidelines. Such a gap may be present in the TOPS programme, too. It may well be that the general principles governing the TOPS programme, its formally-stated "ethos and identity", are not fully reflected in the actual operational blue-print of the programme. Secondly, gaps may appear between what is stated in the operational guidelines and what the recipients of the guidelines think should be done. Teachers may reject some guidelines and they may decide to work differently from the way in which they are instructed to work. Thirdly, gaps may appear between the teachers' intended behaviour and the teachers's actual behaviour. Thus, for example, a teacher may believe that she teaches the children how to think, while actually she keeps the children busy doing routine drill work. Finally, the learner's perception of the teacher's behaviour may be quite different from the teacher's actual behaviour.

These five consecutive phases of gaps may create serious gaps between an ideal programme and the actual one. Therefore, while one attempts to examine the results of a programme, one has first to find out how the programme operates in the class. These considerations justify the examination of the programme implementation process.

The Conditions of Implementation

Fullen and Pomfret (1977) distinguished between two factors that may impede the implementation of an educational programme: the conditions of the implementation and the actual process of the implementation. Variables of the first group constitute pre-condition for implementation. One cannot adequately use a programme if test books have not arrived at the school sites on time, or learners have not attended the classes regularly. Nevertheless, these variables are not sufficient determinants of implementation. Fullen and Pomfret (1977) found that in many implementation studies no such distinction was made, and this created a confusion about measuring the level of implementation.

In this study the variables pertaining to the category of conditions of implementation will first be treated. Three such variables will be dealt with: attendance, drop-out and learning facilities. Another section on actual classroom process variables will follow this section.

Data related to these variables have been gathered from a variety of sources such as observations, interviews, discussion, reports, questionnaires administered to learners and tutors, minutes of meetings, as well as first-hand experience by the writer.

Perseverance and attendance.

Data presented above indicate that 59% of the participants were working mothers and fathers who had to fit in their TOPS studies with their teaching duties and family commitments. Inability to cope with all these demands on their time is a reason suggested for the poor attendance at some of the centres. Tutors reported, for example, that they were often

faced with a different class of participants from week to week, as different students decided not to attend or could not attend for one reason or another. Having missed one lesson, they discovered that they had missed fundamental knowledge, then began to attend sporadically and finally dropped out of the programme altogether. A teacher studying three subjects with TOPS is expected to attend for nine hours' tutorials during forty weeks of the year. This caused particular difficulties to participants in the rural communities of Kwa-Zulu, who had to come long distances. Attending for nine hours' tuition means six x $1\frac{1}{2}$ hours' tuition, and does not take travelling or private study time into account. Effectively, the participants could be occupied with studies everyday of the week. Reports from co-ordinators, however, indicated that most participants took two and three subjects, and this is corroborated by the participants' responses in the questionnaires.

With such commitments, therefore, it is not surprising that many of them did not attend the courses regularly.

Information about attendance was provided by the tutors and the learners.

As has already been indicated, responses from the tutors were obtained from only three regions. They complained about poor attendance and late arrivals. Information about the scope of complaints is presented in Table 31.

Table 31
Complaints of the tutors by percentage

Region	Attendance	Late arrival
Transvaal	64	28
Western Cape	43	11
Kwa-Zulu	44	-
TOTALS	50	13

Fifty per cent of the tutors complained about faulty attendance. The complaints were especially high in the Transvaal and relatively low in Kwa-Zulu. Complaints about late arrival were relatively few, but both poor attendance and late arrivals were severe in the Transvaal and relatively better in Kwa-Zulu. There is no information available about the number of participants who complained about difficulties in attending.. The data reviewed in this study provide information only about reasons given by the learner to explain poor attendance.

Three factors were mentioned: school, family and transport difficulties. Data on the percentage of participants who gave a particular reason for poor attendance are presented in Table 32.

Table 32
Reasons for poor attendance by percentage*

Region	School commitments	Family commitments	Transport difficulties
Transvaal	42	27	76
Western Cape	57	22	58
Eastern Cape	65	25	74
Kwa-Zulu	44	22	50
TOTALS	53	23	65

*Some persons mentioned several reasons or no reasons, and therefore lines do not add up to 100%.

The figures shown in Table 32 represent the percentage of responses by participants to explain difficulties in attendance. No information is available about the percentage of those who had attendance difficulties. The data in Table 32 revealed that the most frequently-mentioned reason is transport, and the second is school commitments. Of course one should interpret these reported reasons with some caution, because those who missed classes merely because of lack of interest or perseverance tended to justify their idleness by other reasons. Nevertheless one should examine the possibility of helping people to overcome such difficulties.

Drop-out.

In a recent report Pavlich (1985) discussed the problem of drop-out from INSET programmes. He assumed that many teachers taking part in INSET programmes were not aware at the time of registration of the sacrifices required of them to attend them. Pavlich suggests, that more should be done to persuade teachers to consider the potential benefits of the programme and to make an effort to stay with it. Greenland (1983) identifies five principal reasons for drop-out from INSET programmes.

The reasons are listed here in order of frequency, beginning with the most frequent:

- (1) The INSET does not lead to new qualifications;
- (2) travelling difficulties;
- (3) the content is not relevant;
- (4) costs are not refunded;
- (5) too difficult to follow.

While reasons (1) and (4) do not apply to the TOPS programmes, one may assume that the other reasons listed above also affect drop-out from TOPS but, of course there are other reasons, too.

A large number of participants confessed that they had dropped out of TOPS classes in some subjects, because they found that they had undertaken too much. They decided to drop one or even two subjects, or pace their work over two or three years. As already indicated, 46% of the participants wished to spread their studies over two years or longer. Table 33 gives the drop out figure for 1984 as well as the total subject enrolments at TOPS centres, the examination entries, and the numbers who dropped out.

Table 33
1984 Drop-out figures

Centre	Original enrolments	Exam entries	Drop-out	% Drop-out
Mtunzini	111	77	34	30
Mpumalanga	177	47	130	73
Eldorado Park	199	71	128	64
George	77	48	29	38
Port Elizabeth	131	29	102	78
Mitchells Plain	405	230	175	43
Elsies River	343	221	122	35
Atlantis	151	90	61	40
TOTALS	1594	813	781	49

Table 33 presents data about the percentage drop-out from the programme. The figures represent drop-out from examinations and not drop-out of persons. Thus, a person who registered for, say, two examinations and dropped out of one, is also listed as a drop out, despite the fact that he entered the examination.

The figures appearing in Table 33 provide information about eight centres only. Other centres were established at a later phase of the programme, and their students were therefore not ready for examination in 1984.

The results indicate that there was a drop-out of 49%, but the percentage drop-out varied greatly from one centre to another, and the range of percentage was 30-78.

Table 34 contains information about drop-out by centre and subjects. The smallest rate was observed in English (42%) and the largest one in Mathematics and Physical Science (69% and 68%). It should be noted, however, that both in the "easiest" subjects (English), and in the "most difficult" (Mathematics) the range of the drop-out rate across the region was large. In English the range was 16%-78% and in Mathematics 53%-100%.

Such differences in the percentage of drop-outs cannot be attributed solely to population differences, and evidence from other sources suggests that the proportion of drop-outs is greatly affected by the quality of the management of a particular centre.

Learning facilities.

Most of the centres in which TOPS was operating were adequately provided with facilities. Either the centres were located in secondary schools or in training colleges, where there were adequate facilities conducive to learning and "hands on" opportunities for Science. In some cases, however, the centre operated from a primary school. This meant that there were laboratory facilities, and the adult teachers had to sit in classes designed for primary-school children. This was very unsatisfactory, but fortunately it was for only a limited time during the rioting and unrest in the township.

Table 34

Centre enrolments and drop-out by subjects

Centre	ENGLISH			AFRIKAANS			BIOLOGY			MATHEMATICS			PHYSICAL SCIENCE			TOTALS		
	enrol	exam entry	% OF DROP OUT	enrol	exam entry	% OF DROP OUT	enrol	exam entry	% OF DROP OUT	enrol	exam entry	% OF DROP OUT	enrol	exam entry	% OF DROP OUT	enrol	exam entry	% OF DROP OUT
ELDORADO PARK	46	19	59	55	25	69	50	17	66	33	5	85	15	5	67	199	71	64
MITCHELLS PLAIN	96	55	43	120	73	39	136	79	42	47	21	55	6	2	67	405	230	43
ELSIES RIVER	88	74	16	116	60	48	120	78	35	19	9	53	-	-		343	221	36
ATLANTIS	46	26	43	51	28	45	54	36	33	-	-		-	-		151	90	40
GEORGE	18	10	44	24	13	46	24	21	12	8	4	50	3	-	100	77	48	38
PORT ELIZABETH	27	6	78	25	7	72	50	9	82	25	7	72	4	-	100	131	29	78
MTUNZINI	28	20	29	21	15	29	30	28	7	18	8	56	14	6	57	111	77	30
MPUMALANGA	48	20	58	45	18	60	48	6	88	21	-	100	15	3	80	177	47	73
TOTALS	397	230	42	457	239	48	512	274	48	171	54	69	57	16	68	1594	813	49

The whole question of Physical Science was a difficult one. There were always too few students enrolled on TOPS Science courses in any case, and because of time constraints in trying to complete the syllabus in one year, there was never any time for the students to do experiments even where equipment was available. This reduced the subject to rote-learning about Physical Science experiments in the abstract and the learning of rhymes such as:

Johny finding life a bore,
 Drank, some H_2SO_4
 Johny's father, an M.D.,
 Gave him some CaCO_3
 Now he's neutralized, it's true.
 But he's so full of CO_2 ,

which were observed in one student's notes at one of the centres.

The three hours a week were invariably taken up with formal lecturing and notes. A further difficulty in the centres was lack of Science materials. The arrangement planned was that TOPS centres should use the chemicals and equipment of the various centres and reimburse the schools or colleges for materials used and for breakages. Often, however, use was not permitted, even where there were excellent facilities and materials. In other cases there were often excellent facilities but no materials. It was mainly for these reasons that requests were made for the whole question of Science (and Mathematics) to be looked at again.

Implementation-Process Related Variables

The second group of variables related to implementation deal with actual classroom events (Fullen and Pomfret 1979). In this section the variables to be dealt with are: deficiencies of the study materials, difficulties in concentration, and pacing. By no means do these variables cover all significant implementation variables, but the scope of the study did not permit the collection of more precise data on the implementation process.

Difficult study materials.

Only a very small proportion of the learners indicated that the study materials used in classes were difficult for them. The general national figure was 4% i.e. only 4% of the TOPS participants indicated that they had difficulties in understanding the study materials.

The question of study materials was much debated at the co-ordinators' meetings. Great sums of money had been spent in buying the recommended books and materials. Contrary to what the participants thought, there was a strong feeling among the tutors and the co-ordinators that many of the texts were inadequate and in some cases superfluous.

The evaluation carried out by the tutors and the co-ordinators was summed up by Mehl: "It appears that some materials are not suitable for the coloured students the Cape" (TOPS, National, 1984).

At a meeting of the regional co-ordinators in July 1984 the question of materials was thoroughly discussed and a recommendation was made that "The National Co-ordinator should be mandated to initiate the creation of study materials" (TOPS, National, 1984). The reason for this recommendation was that the prescribed books had been found not to match the needs of the participants adequately. Furthermore, the regions reported, that they considered it imperative, that they should be allowed to produce materials that were relevant to the experience, culture, environment and level of understanding of the participants.

With regard to the so-called "difficult" subjects of Mathematics, Science and Biology, some tutors requested that I.B.M. recordings should be made available for teaching by video. This was agreed by the national committee because the tapes had already been evaluated and introduced into D.E.T. schools. It was thought by tutors and co-ordinators, as well as by the regional committees, that the national booklist was too prescriptive, and that one set of materials should not be prescribed by the national committee for the whole target population.

Much more autonomy was requested, so that educationists working with the programmes in the regions and in the communities concerned should have a say in what was bought or prepared. The regions, working with a pre-specified and agreed budget, wished to be permitted to develop their own materials to supplement those recommended by the national committee. There were requests from some tutors, that in cases where participants were having difficulties with the prescribed materials, the tutors, under the guidance of the regional committees, should be allowed to replace them with others, either purchased or written, that they thought might help.

Difficulties in concentration.

Recent studies have proved that it is not the hours that are put into work but rather the work that is put into the hours that brings success. Bloom (1976) has distinguished between time allocated to study and time actually spent on study, and demonstrated that the variable "time on task" is more highly correlated with achievement than "time allocated to study".

It has been indicated that TOPS generally allocated three hours per subject per week to each subject, except near examination time when the tutors and participants had the option of increasing the time. Apart from some of the Science classes, it was a generally accepted principle that the three hours were split up into two sessions of $1\frac{1}{2}$ hours each. Some Science classes used the three-hour sessions so that the participants could have "hands on" experience in laboratories to conduct experiments.

Though $1\frac{1}{2}$ hours seemed to be better and more acceptable, than a three-hour study period, it was found that it was still a long time for anyone to keep up concentration, particularly in such subjects as Mathematics, which operates mainly with abstract symbols. Thus one may assume that those who attended classes for a three-hour study period, and also those who attended for a one-and-a-half-hour study period, had spent less "time on task" than actual "allocated time".

All TOPS participants are practising teachers. School begins at eight a.m. and goes on till three p.m. After that the teachers are expected to take part in out-of-school activities, e.g. basketball, netball, choirs, library duties and so on. In other words, they have to comply with all the reasonable professional requests of the principals. Because TOPS classes wished in no way to interfere with school, and at the same time wished to let the participating teachers get home before dark, TOPS classes took place during the late afternoon and early evening period. This meant some twelve hours for the teachers between leaving for school in the morning and getting home in the evenings. There were then most certainly domestic responsibilities and school preparation work. One may presume, therefore, that concentration was difficult for weary teachers and that success depended to a very great extent on the enthusiasm, experience and interest of the tutors, the effective use of visual aids, TV, film, video and the O.H.P. to break monotony and retain interest. Boring, monotonous lectures and an excessive use of "chalk-and-talk" to tired participants would only cause them to lose concentration.

Pacing of TOPS courses. :

Since the most of the participating teachers did not wish to extend the study time and to postpone examinations by a year it seems reasonable to assume, that this group felt able to cope adequately in the time allocated. Since they generally had no complaints about the materials, there is also reason to believe, in spite of the doubt expressed by some tutors, that most of TOPS participants found that they could study adequately and they could get ready for the examinations in time. Some of the participants complained that the tutors tended to cover too much ground too quickly. There is some contradiction between the reluctance of the learners to extend the study period to two years on the one hand, and the complaints about fast pacing on the other.

Nevertheless, the question of pacing could be handled also without expanding the "calendar time" of the study period. Thus, for example, a survey carried out among the five coordinators of the programme in the regions and among many of the tutors resulted in a request from

participants that more time in the form of extra lessons, additional seminars, tutorials and workshops, should be afforded to those who needed it. These extra sessions were to take place regularly on Saturday mornings, at some other convenient time at centres or at some quiet place, where problems could be freely discussed without fear of appearing slow to understand. There was also a request that bridging or remedial classes should be introduced. Tutors suggested that there should be three levels of instruction, bridging and remedial courses for those below Standard 8 and an advanced course for those students with Standard 9, who would take matriculation. It was thought that this would enable tutors to pace the studies to the level of a homogenous group without the need for considering the fastest or the slowest in a group of mixed ability learners.

There was a consensus among the tutors and the teacher participants, that academic courses for some learners should be spread over two years' study. In this context it is of interest to present the opinion of tutors about problems encountered by the participants during their studies, and to suggest means of helping them to overcome these difficulties. Table 35 presents the relevant data.

Table 35
Tutors' views on TOPS students attainment
and needs by percentage.

Region	More tuition	Teach basic concepts	Interim exams	Teach exam techniques
Transvaal	42	64	7	14
Western Cape	76	32	11	4
Kwa-Zulu	67	33	11	22
TOTALS	49	41	10	10

Suggestions that came up in the list of tutors' recommendations were: teach basic concepts, teach examination techniques and introduce interim examinations. Some of these suggestions can be related to the study skills component of the TOPS programme, others to extensive evidence produced by researchers about the advantages of using formative evaluation tests of students learning (Bloom 1976).

Outcome-Related Evaluative Information

The aims of the TOPS activities in the first year of its operation were to help participants to pass the matriculation examinations. Accordingly the main theme of this section concerns data about matriculation examinations in various subjects and in various centres. Nevertheless one may define other outcomes of studying within the framework of TOPS, such as enrolling to study new subjects with TOPS, changing teaching behaviour and deriving satisfaction from the studies. All these matters will be discussed in the present section.

The Senior Certificate Matriculation Examination

There are nine different examination bodies in South Africa. These are presided over by the Joint Matriculation Board, which supervises standards. Participants in TOPS sit the matriculation examination as external candidates. Because two different racial groups, Coloured and Black, are affected two completely different matriculation examinations are sat. To exacerbate this already complex situation, both Black and Coloured teachers studying with TOPS sit the examination at different times of the year, the Blacks in November, and the Coloureds in June. This system is to cease after 1985. Henceforth all external candidates will sit the matriculation examinations as external candidates in November each year. They will, however, still be segregated, and will still sit different matriculation examinations. The Blacks will sit the examinations of the Department of Education and Training and Coloured participants of TOPS will sit the examinations of the Department of Education and Culture (formerly the Department of Internal Affairs until 1984).

Such a plethora of examining bodies and syllabuses is also complicated by the large number of candidates, who enter for the examinations as private candidates.

The participants in TOPS courses are responsible for their own entry to the examination. Often many fail to enter for a variety of reasons, which range from forgetting to lack of money. Furthermore, when the results are published tutors have to search through hundreds of computerized lists to find the names of TOPS participants among many thousands of others. To simplify matters, therefore, the suggestion was made by the TOPS participants, and supported by the tutors, that all the TOPS candidates should be entered together, and that an application should be made to the authorities to allow TOPS to set up its own examination centres in the various segregated townships. This would mean that the tutors would know, who had been entered, and could easily find out, how many had been successful. Moreover, the participants thought, that it would give them greater confidence to be able to sit the examinations as a homogeneous group.

Attending and preparing for examinations.

Under Descriptive Supplicative Information, the need for a study skills programme for the TOPS participants was one of the requests by participants and tutors. Part of this programme would concern preparation for examinations and preparing an examination programme routine. Tutors reported that many participants, particularly in the older age-groups, had an inordinate fear of examinations and assessment. After experiencing a huge absentee rate on a number of occasions, when termly tests or examinations were to be held, discussion with their students brought home to them the fear that they felt, and thus a suggestion was made for a course, that would include preparation for examination. The experience of the tutors also was that participants lacked the skills, and expressed the need for organizing revision, writing different types of assignments, analysing essay titles and rubrics of questions, and writing essays for examinations using sketch plans, keeping to the point, and time management in examinations.

Since the participants are primary-school teachers, one may assume that they are not concerned with any sort of formal examinations in the same way as teachers at the top end or even the middle classes of the secondary school would be. The only examining they would be concerned with would be testing at the primary level.

The 1983-84 TOPS participants who sat the examinations for matriculation in June 1984 (Black students) and in November 1984 (Coloured students) were not exposed to any formal course in study techniques or examination preparation, and one may assume, therefore, that this affected success in the examinations.

There follows a consideration of the examination results in the TOPS centres. Drop-out has already been considered but there is a distinct overlap and connection between the drop-out rates and the general success-rate in the centres. Where necessary, attention has been drawn to it.

Table 36
Subjects, that participants intend
to take, by percentage

No. of subjects	This year	This year and next year
0	45	4
1	6	10
2	17	33
3	30	43
4	1	4
5	1	6
TOTALS 100	100	100

Table 36 indicates that before the 1984 examination 45% of the participants decided that they would postpone taking any examinations until 1985.

This one may suppose, was because they had been advised by their tutors or had decided for themselves, that they would not be well enough prepared. This was a realistic attitude; 4% even decided to wait for two years before sitting any examinations.

6% decided to take only one subject in 1984, and altogether 10% decided to take one subject either in 1984 or in 1985. One may suppose, however, that they were studying more than one subject, since it was policy recommended by TOPS that all participants should study two or three subjects. However, some participants may have needed only one matriculation subject. 17% of the participants intended to take two subjects and 33% decided that they would take two subjects either in 1984 or spread the work over two years. A large group of 30% were taking three subjects all at once in 1984, and of course a large group decided to take the same number of subjects either in 1984 or spread over two years (43%).

Only 1% were taking four subjects at once and 1% were taking five subjects at once during 1984. 4% of the participants, however, were taking four subjects and 6% were taking five subjects either this year or spread over two years. One may assume that the numbers of subjects that the participants intended to take correspond to the number of subjects they needed to get a matriculation pass of six subjects.

Matriculation results.

There was no streaming or setting of TOPS participants during the first year of TOPS courses. They were in mixed-ability classes, with wide discrepancies in age and level of attainment. It has been indicated that some of them, although in possession of a Standard 8 certificate, were in real attainment at a lower level. Although they may well have completed

the year of studies with TOPS and then failed the examination, it may be that there was some relative success for those who increased their knowledge considerably yet failed the examination at Standard 10.

Failure in examination did not exclude participants from entering other TOPS courses or repeating the courses in the subjects that they failed. Table 37 analyses the examination results and shows that of the 813 subject entries there were 397 successes. Of this 51% failure rate, all participants were permitted to re-enrol on TOPS courses. Because there were 1594 original enrolments the success rate between this figure and actual pass rate was only 25%.

Looking at the pass rates in various subjects one may discern subjects with a relatively high pass rate. English and Afrikaans belong to this category, with a pass rate of 67% and 55%, Mathematics and Physical Science are characterized by low pass rates (9% and 18%). It should be noted that the raw figures of passes in these two subjects are very low (for Mathematics it is 5 and Physical Science 3) and therefore the percentage figures have a very low level of stability. Biology, with a 37% pass rate, stands in between the group. As to the percentage of passes by centres, the differences are relatively low, with a minimum of 42%, a maximum of 77% and a medium of 47.5%. Nevertheless there are great differences between centres with regard to the pass rates in any given subject. In English the range is 50-95 per cent and in Afrikaans 48-92 per cent. As expected there is a negative correlation between the pass rates of the centres in English and Afrikaans. (Spearman's $\rho = .60$). The centre with the highest pass-rate in English (95%) occupies the seventh place in the rank of pass rates in Afrikaans, while that, which occupies the highest rank in Afrikaans, occupies fifth place in English.

Interesting comparisons can be made between Table 37 and Table 38, which gives the National Senior Certificate examination results for the country as a whole, excluding Black students for which no figures were available.

Table 37

Examination entries and passes by subject and centre

Centre	English			Afrikaans			Biology			Maths			Phy. Sci			Total		
	Entry	Pass	%	Entry	Pass	%	Entry	Pass	%	Entry	Pass	%	Entry	Pass	%	Entry	Pass	%
Eldorado Park	19	18	95	25	12	48	17	4	13	5	-	0	5	-	-	71	37	52
Mitchells Plain	55	38	69	73	40	57	79	27	34	21	2	9	2	1	50	230	108	76
Elsies River	74	45	61	60	30	50	78	28	35	9	-	0	-	-	-	221	103	47
Atlantis	26	17	65	28	11	39	36	10	28	-	-	-	-	-	-	90	38	72
George	10	7	70	13	12	92	21	16	76	4	2	25	-	-	-	48	37	77
Port Elizabeth	6	3	50	7	5	71	9	8	88	7	-	0	-	-	-	29	16	55
Mfunzini	20	12	60	15	11	73	28	8	28	8	1	12	6	1	16	77	32	42
Mpumalanga	20	15	75	18	11	61	6	2	25	-	-	-	3	1	33	47	29	62
TOTAL	230	155	67	239	132	55	279	103	37	54	5	9	16	3	18	813	397	49

Table 38
Comparison of TOPS results with national figures

a	b	c	d	e	f	g
Body or agency	Exam entries	Sat exams	Exam successes	d as % b	Drop-out	Drop-out
National Senior Cert.	37,135	28,790	17,463	47%	8,345	23%
TOPS	793	658	397	50%	135	17%

There can obviously be no comparison of numbers of examination entries, as TOPS operates on a minute scale compared to the Department of Education and National Examining bodies. However, the percentage figures are significant. The pass-rate for TOPS is slightly better than that of the Education Departments in column e. The drop-out rate was also slightly less, with TOPS at 17% compared to 23% (column g).

Enrolling on New Courses

It has already been indicated that participants in TOPS courses attended voluntarily, and that because many had overloaded themselves they decided to drop out of some. Others may have dropped out because of the lack of prerequisite knowledge of unforeseen circumstances beyond their control, of which they were unaware at the time of enrolment, or because of lack of perseverance. The teachers are under no duress to attend TOPS courses, and those who fail or are forced to drop out, for what ever reason, are allowed to enrol on TOPS courses again. Tutors and senior tutors have reported that this has been the case. By the time they re-enrol more subjects may be offered and at various levels, and there may be some courses in study skills and preparation for examinations, which may enhance the prospects of success.

Changing Teacher Behaviour

A stated purpose of the TOPS courses is to improve the quality of the teacher and his competence, so that he will become more confident and improve his techniques. The seminars and lectures of the methodology courses were therefore important, but beyond that, it is assumed that the seminars and lectures of the academic component, too, had some effects. The perception of the learners themselves about, what they had learned from following TOPS courses in the way of professionally-related gains, was sought, and Table 39 presents relevant data.

Table 39
Professionally related gains of TOPS courses

Region	Know more about subject	More confident	Improved teaching techniques
Transvaal	25	4	25
Western Cape	20	3	26
Eastern Cape	20	3	26
Kwa-Zulu	28	6	28
All	97	17	103

Table 39 represents a cross section of the population in the four regions. Among the teachers who believed that there had been an improvement in teaching techniques, it is likely that many attended the seminars in the methodology of the teaching subjects. The 97 who thought that they knew more about their subject as a result of TOPS courses could be combined with the 17 who felt more confident, since it may be assumed that increased knowledge brings confidence.

The Relationship among Selected Variables

Attempts to establish patterns of relation among variables appearing in the study produced little result. One may attribute this failure to an insufficient amount and lack of precision of the data. As already indicated, out of the 937 persons who submitted the application questionnaires only 315 returned follow-up response sheets, and even those persons have not fully answered all questions.

Correlates of achievements.

Despite the paucity of the data one may point out some bivariate relations between the variables. Table 40 presents the correlation coefficients among the scores or symbols obtained in three subjects in which a relatively large number of persons took part.

Table 40
Correlation coefficients among
examination scores

Subjects	English	Afrikaans	Biology
English	1.00		
Afrikaans	.48	1.00	
Biology	.19	.26	1.00

It can be seen that a relatively high level of positive relation was obtained among the symbols (scores) in English and Afrikaans of persons who sat the examination. A correlation of about .50 is commonly observed in scores on various school subjects (Bloom 1976). Among subjects that require similar abilities (such as two languages, or two branches of science) one often finds a higher relation than that observed here. It

is interesting to note that the scores in Biology are weakly related to the scores in English and Afrikaans (.19 and .26). There is some evidence that most "weak" TOPS participants took the examinations in Biology, while the stronger preferred to take examinations in Mathematics and Science.

However, since the number of persons who reported on scores obtained in Mathematics and Science was small, there is no possibility of examining the relationship between these subjects.

An attempt was made to examine the relations between variables examined in the previous sections and examination scores. Some of the results are shown in Table 41.

It can be seen that a considerable number of the correlation coefficients are close to 0 (the range between .15 and -.15 can be practically considered as zero), which suggests that no relation of any kind has been observed among the variables.

The vertical dimension of table 41 lists variables of different types, including biographical characteristics of the participants of the programme, intellectual, and environmental or circumstantial characteristics. Finally, it contains two variables that describe the participants attitude towards the programme: their satisfaction with the programme and the gain reported by them.

Table 41
Factors associated with examination scores

	English	Afrikaans	Biology
Age	.13	.10	-.04
Sex (males=1, females=2)	-.02	.04	-.04
Number of subjects having at least Standard 8	.08	.03	-.32
Number of vernaculars spoken	-.42	-.28	-.26
Knowledge of two main languages (Afrik. and Engl.)	.26	.20	-.28
Distance from school	-.42	-.40	-.23
Distance from home	-.36	-.08	.09
Satisfaction and Gain reported	.09	.18	.00

Notes: (1) Positive numbers indicated a direct relation, i.e. the higher level obtained in one variable, the higher the level obtained on its matched variable, while negative numbers indicated an inverted relation, i.e. high level in one variable is associated with low level in the other.

(2) No attempt has been made to examine the significance of the statistics, since they are based on a small number of cases, and therefore they should be considered as exploratory estimates.

Biographical variables.

The relation of two biographical variables (age and sex) to scores (or symbols) was examined. It was expected that age would be negatively related to symbols obtained, i.e. that older learners would get lower symbols than the younger ones. This expectation has not been

substantiated. Although the correlation coefficients are clustered round zero, there is a balance between negative and positive values. Nor is sex related to success in examinations: men and women have equal chances of success.

Intellectual characteristics.

In this cluster of variables one finds three components. First, the number of subjects in which the participants has at least one attainment of Standard 8 is (suprisingly) negatively related to the scores in the biology examinations. It is difficult to explain this relation. Secondly, the command of both main languages is positively related to scores in Afrikaans and English, and negatively related to scores in Biology. Thirdly, knowledge of several vernacular languages appears to be an inhibitive factor for attaining high scores in the examination. This relation, however, is a spurious one, i.e. it is not the knowledge of the vernacular that prevents obtaining high scores but rather the fact, that those who know several vernaculars tend to have a poor knowledge of the two "official" languages. Indeed, the correlation between knowledge of vernaculars and knowledge of the two main languages is $-.36$.

Environmental variables.

Distance of the school from the TOPS study centre is negatively correlated with examination scores in all three subjects, while distance of the participants' homes from the centre is negatively correlated with only two examination scores.

One of these negative correlations has a value close to zero. One may interpret the negative correlation in two different ways. One may suppose that teaching in a school far away from the TOPS centre imposes a heavy burden of travel, which reduces the chances of obtaining high scores. But one may equally well assume that those teachers who teach in schools at a great distance from regional centres have poorer

intellectual capabilities than those who teach at more central schools. If one accepts this second interpretation, then the correlation between distance and attainment is spurious. Data available within the present study do not give information, that bears evidence related to this question.

Satisfaction and gain reported by learners.

The follow-up questionnaire contained information about satisfaction with and gain from participation in the programme. Item 57 contained the following question:

"How would you describe your experience in studying with TOPS?", and the alternative responses were: very gratifying, fairly good, disappointing, very disappointing.

To another open question the respondents were asked to specify gains from TOPS studies, and the following positive responses emerged: "I know more about the subject"; "I feel more confident"; "I could help children more"; "Courses improved my teaching techniques"; "I was put to teach in higher classes".

Table 41 indicates that little relation exists between examination scores, and the satisfaction or gain variables. It means that one may find satisfied and less satisfied persons among both those who attained high examination scores and those who attained low scores. The affective response to the programme is not fully determined by recognition given to the learner through external examination marks.

Chapter 7: Conclusions and Recommendations

The present study dealt with the evaluation of the first year activities and attainments of a nationwide in-service training programme planned and implemented in South Africa. The programme was financed by the private business and industrial sector operating in South Africa, and it was planned and carried out by the organizational network known by the name Teacher Opportunity Programmes. In contrast to research in general, one of the characteristic features of evaluation studies is, that it does not strive to formulate generalizations. It focuses on explaining and interpreting a particular situation, and on reporting data summaries useful for decision makers in selecting alternatives (Cronbach 1980; Alkin 1970). In the philosophy of science it is accepted that a distinction be made between nomothetic and idiographic studies (Stern 1963). Studies pertaining to the nomothetic category strive to produce generalizations. One frequently encounters studies of this type in the natural sciences as well as in the behavioural sciences, and studies employing the experimental design paradigm are good examples of the nomothetic approach. In contrast, the idiographic study strives to describe and interpret a unique situation, to analyse its structure and to reveal the nature of the relationship among its component elements. Studies in history and literature are typical examples of the idiographic approach, but one may encounter idiographic studies in several disciplines of natural sciences, too. Thus, for example most studies in geology employ the idiographic approach.

In the last two decades evaluation studies have moved away from the experimental design paradigm, which represented the nomothetic approach, and gradually adopted the idiographic approach. Large scale evaluation projects carried out recently in various countries have been less

concerned with the generalizability of their findings, and appreciated more the possibility of using evaluation results as input for decision making (Cronbach 1980; Alkin 1979). Evaluation studies employing the idiographic approach gained a high level of scientific recognition and, as summarized by Lindblom and Cohen (1979), studies of this type constitute a highly valued category within the broad variety of Disciplined Social Enquiry types.

The aim of the present study was to provide information and data summaries useful for decision makers. It has been grounded in the hope that such a study may contribute to the improvement of the programme. Accordingly it may be characterized as an idiographic study, which does not strive to produce generalizations.

But the significance of the study reported here goes beyond rendering useful service to one particular educational project. This is only one kind of pay off and quite likely the most direct one of this study. One may discern two additional levels of knowledge accumulation to which the present study is expected to contribute. First, it has a modest contribution for the advancement of evaluation as a field of disciplined enquiry. Secondly, it is expected to have a considerable impact on evaluation activities and on improving INSET activities in South Africa. Finally, as already indicated, the direct impact of the study will be felt mainly within the framework of the TOPS' INSET programme, upon which the operational recommendations produced on grounds of the data summary have bearings. These expected contributions will be summarized in this chapter in the hierarchical order of their generalizability.

Advancement of Evaluation Enquiry

This study constitutes an example of utilizing principles and ideas expressed in evaluation theories and modes, and provides support to their validity.

Models and theories need empirical validation and, unfortunately, in the field of evaluation there is a scarcity of empirical studies, which may fulfil the role of validating theoretical constructs. One frequently encounters complaints about the scarcity of empirical studies in evaluation. The scope of theoretical writing in evaluation expands quicker, and to a greater extent than the scope of concomitant empirical studies (Lewy 1977). On one hand numerous innovative ideas in evaluation have faded out, because they have never been put into use in empirical studies, and at the same time other innovative ideas have been prematurely adopted without adequate empirical validation.

The present study aims to fill this gap, and it strives to prove the validity of some concepts introduced in evaluation theory. In more specific terms reference will be made to the following concepts: idiographic enquiry, triangulation, evaluation utilization, audience differentiation.

Idiographic enquiry. The study illustrates the enquiry methods, which are appropriate for idiographic studies in the field of educational evaluation. It strives to provide a detailed description of a complex programme run simultaneously in 13 different centres, and points out the common features of the programme across centres as well as the unique features of several centres. The deviation from the overall pattern is emphasized in this study not less than the overall problems permeating the whole programme.

Triangulation. Guba and Lincoln (1981) emphasized the importance of deriving information from various sources which have a bearing upon the issue being examined. Collating such pieces of information and examining the level of accord among them, or the reasons for disaccord, if any, is referred to as triangulation. The present study uses a variety of sources of information to illuminate issues of different types. Responses to questionnaires, records of site visits, transcripts of interviews were scrutinized as well as minutes of committee meetings, which were relevant to questions being examined. The validity of diagnostic statements and of recommendations were supported by the convergence of the evidence obtained from different sources.

Evaluation utilization: Alkin et al (1979) emphasized the utility aspect of evaluation, and claimed that spending money on evaluation is justified only if the evaluation contributes to the improvement of the programme. Evaluation may not only improve programmes, but it may also avoid wasting money on non-efficient programme components. Accordingly, the worth of an evaluation study should be determined on the grounds of the scope of its utilization. But, quite frequently claims have been made that evaluation is just an intellectual exercise, which produces non-conclusive results and consequently it has little practical value. The present study contributes to the validation of the 'utilization hypothesis'.

A series of interim reports produced during the process of carrying out the study constituted input for committee meetings at national level and regional level, and motivated the programme leaders to introduce changes in various modalities of the programme. It also served as an input for negotiation with Teachers' Unions and Departments of Education, and contributed to the credibility of the programme in the eyes of the donors, who supported the programme.

Audience-differentiation: Nevo (1983) pointed out that reports prepared by evaluators have to be fitted to the needs of their target readership. A report, which excels from the point of view of its scientific quality does not necessarily fit the needs of a project executive or the needs of a group of donors, who would like to reconsider their involvement in a particular project. Alkin (1979) indicated that the chances for utilizing evaluation results do increase, if the evaluator knows exactly, who will be the reader of the report and adapts the style of the report to the particular need of the prospective readers.

While the present report is structured in a way, which should fit the standard of a scholarly piece of work, it is by no means the single product of the evaluation study which was carried out. As already mentioned several short reports have been produced, and will be produced in the future, based on the findings reported here, and geared towards the need of well defined target audiences. In this respect the evaluation study carried out on the TOPS programme constitutes a support for the contention that "audience differentiation" is not only useful, but also a feasible aspect of the evaluator's work.

Impact upon Evaluation and INSET
Programmes in South Africa

Both the fields of evaluation and of INSET programmes are highly valued domains of enquiry in South Africa, nevertheless little empirical work of scientific merit has been produced about these topics in this country, even when compared to studies related to other fields of educational sciences. Publications in the field of curriculum development, instructional methods, educational philosophy and sociology in South Africa outnumber the works done in evaluation and INSET programmes, let alone in the quality of the reports produced. One may assume, that there is a high level of correlation among the number of research reports produced in a particular area, the quality of the reports, and the scope of activities taking place. The launching of the TOPS project and its concomitant evaluation study may signify increased interest in these areas and it may also boost development and research activities in these domains.

Pay-off-for-Evaluation

While in U.S.A. and in other developed countries fund raising agencies frequently set the demand that evaluation be conducted as a precondition for supporting an educational project, in South Africa such a demand is very seldom put forward. Moreover the concept of evaluation is vaguely defined in South Africa, and it is frequently conceptualized as a kind of supervisory activity, where the evaluation is done by persons, who are in a superordinate position to those who are administratively responsible for the management of the programme. The importance of systematic data collection and data summary as an input for decision making has not gained wide recognition, though the mere fact of conducting the present study is indicative of growing appreciation for the need to re-define the role of evaluation in the South African educational system. It is expected that demonstrating the worth of evaluation in the context of a single educational project will facilitate changes in attitude towards evaluation. First, it will create a greater awareness of the work of evaluation. It will motivate grant giving agencies to require that projects should be evaluated, and concomitantly it will increase the

willingness of project managements to allocate money for evaluation. Project managements will understand that rather than constituting a menace to their autonomy, evaluation may help to improve their programme. Secondly, a recognition will be given to evaluation as a legitimate full time job within the framework of educational projects. The scope of work documented in this study, will render it plausible, that evaluation can not be carried out as a marginal activity of the management tasks, but it requires adequately trained full time professionals. Finally, it is hoped that the present study will help to convince people concerned with education, that there is a need to establish a network of evaluation professionals who set standards for evaluation studies, criticize evaluation reports, and create contact and communication with those, who set standards for evaluation at international level.

Pay-off for INSET Programmes

There are no doubts in South Africa about the necessity of increasing the scope of INSET activities in all educational sectors. Indeed both the private sector and the State support INSET activities of various types. There is less awareness about the need to conceptualize the characteristics of INSET and to provide taxonomical categorization of ongoing programmes. The accomplishment of this task is the responsibility of educational researchers. Providing a clear picture of one INSET programme being conducted in South Africa, may help educational planners in devising new INSET programmes, and also help rank and file teachers to identify those programmes which have the highest appeal to them.

Implications of the Findings for the TOPS Programme

As already indicated the evaluation target was the operation of the TOPS programme during the first year of its existence. While the aim of the study was to produce a data summary useful for the decision maker, the complexity of this nationwide programme, which operated through 13 centres demanded that basic information for illuminating the project features and identifying decision areas be collected first. The study had goal-oriented and goal-free components. Data collected through questionnaires answered questions which dealt with the congruence between programme intents and reality. The non structured interviews, suplicative statements made by programme participants, site visits, and document analysis examined the 'stakeholders' response to the programme without considering explicitly stated programme goals.

The specific results and findings were clustered into five major groups which, re-naming the expressions used in previous chapters, dealt with the realization of the programme intent, desires and wishes expressed by programme participants with regard to the modification of the programme, the process of implementation, the attainment of some programme goals, and the pattern of association between a selected set of programme variables. It appears to be unnecessary to record all recommendations made in the previous chapter. In this section the focus is on some major programme features. First four recommendations are listed which touch upon comprehensive aspects of the programme. They are referred to as macro-level recommendations. Following these, a series of recommendations is presented which touch upon particular programme components. These will be referred to as micro-level recommendations.

Macro-Level Recommendations

The recommendations presented in this section touch upon pervasive issues of the programme. They have been discussed in numerous committee meetings and on the grounds of recurrent reference to them in minutes one may consider them as the crucial dilemmas of the programme. The recommendations were not directly derived from the data summaries

presented in the previous chapter, nevertheless each recommendation has received some support by the findings reported above.

Grass-root or central initiative.

One of the dilemmas of the programme was, to what extent should programme parameters be determined at the central management level of TOPS, and what are the decision areas to be delegated into the hands of the centres. Moreover, questions were asked about the degree of participation in the programme management by the TOPS clients, i.e. teachers studying in the INSET programme.

The analysis of internal documents revealed that the programme leaders expressed a very strong support for fully "democratic management", rejecting the "top-down" development model, and preferring the "grass-root" or "bottom up" model. This view received explicit expression in Pavlich's (1985), document commissioned by the Urban Foundation, which serves as a roof organization for the TOPS programme. The grass-root approach was justified for two reasons: The pervasive democratic attitude of the committee members, and the massive research evidence in favour of grass-root development reported recently in literature about INSET programmes (Bolam 1982). While these arguments have convincing value, nevertheless one should not forget that the relevant research evidence has been accumulated in highly developed countries, where teachers in INSET programmes have a higher professional status, than that of the TOPS' participants. A particular approach, which has been found useful in developed countries, is not necessarily appropriate for teachers in developing educational systems. A grass-root approach is slower in creating changes, than the centrally introduced innovations. The data summaries presented in the previous chapter suggest that one should be careful in fully adopting the recommendations for grass-root development of the programme. In the list of supplicative statements presented by the TOPS participants one finds few remarks or suggestions which touch upon crucial parameters of the programme. The requests concentrated on issues of time schedule, transport, fees and tutorial help. No comments were made about the pedagogical aspects of implementing the programme.

Thus, it seems reasonable to suggest, that efforts should be made to increase the participation of the clients in the process of decision making, and the autonomy of the centres should only be gradually extended after careful examination of those areas in which they are competent to make decisions. It seems likely that concerning the technical aspects of carrying out the programme, such as time schedule, transport etc. the centres should be given a high level of autonomy, whilst with regard to the intellectual aspects of the programme, cooperative planning may better fit the present circumstances than the "grass-root" planning model.

Diversifying the programme.

Under the present circumstances the TOPS programme adopts a uniform model of operation across all centres, putting major emphasis on the academic component of the programme. Other components of the programme, such as methodology, study skills, and management skills are considered supplementary components, which are open only for those, who are enrolled in the academic studies. Such an arrangement diminishes the importance attributed to the non-academic components of the programme, and classifies them as second-rate studies. There are other disadvantages, too, in tying the non academic component to be academic ones. Firstly, most persons enrolled in the academic component of the study are heavily burdened with home work, and have little time to assume commitments, which are not absolutely necessary for passing the matriculation examinations. Secondly, since in most cases only a few teachers from any single school are enrolled in the academic component of the programme, even in those schools which are affiliated to some TOPS centre, only a minority of teachers take advantage of TOPS' offerings. Disassociating the academic component from the non-academic component, and encouraging teachers and principals in schools affiliated to TOPS to participate either in the academic component of the programme or in the non-academic component, or alternatively in both components, would increase the importance of the non-academic component of the programme, and would also expand the involvement of the teaching staff of a particular school in TOPS activities.

Small scale changes could be introduced in programme patterns both on the initiative of the centres and on the initiative of the central leadership of the programme. Such changes should be carefully evaluated, and only if they are found successful should a recommendation be made for major diffusion. In this manner the repertoire of the programme components may be broadened incrementally and consequently centres will be forced to assume autonomy in selecting those elements of the repertoire, which they consider most appropriate to their use.

Long range and short range operational aims.

The programme rationale made reference to the grave problems, which face the Black and the Coloured educational systems in South Africa, and indicated that at present, 80,000 under-qualified primary teachers are employed in these systems. It was claimed, that high national priority should be given to upgrading these teachers and so supply qualified teachers for these systems. The TOPS programme was launched with the ambition to help to eradicate this problem, nevertheless the programme rationale has not indicated, what the TOPS' share in dealing with this problem would be. It seems quite clear, that TOPS as an organization supported by the private sector, cannot be the single agent capable of solving this problem. It assumed the responsibility of taking a share in finding a solution for this problem, and of serving as a catalyst for motivating other agencies, too, to work towards a satisfactory solution, but it has not strived to be the single agent in this field.

The findings of the reported study provide some base-line information about the power of intervention programmes to raise the qualifications of the teachers. These findings enable one to assess, in realistic terms, what can be accomplished within the framework of TOPS, during a given period of time with the limited resources available. It is reasonable to believe that TOPS resources will increase in the forthcoming years, but even so, the organization should set short range objectives and should specify the desired aims of the programme for, say, the next five years. It may be useful to specify a set of minimal programme aims, to be attained if the growth of resources is slow, and also a maximal set of goals in case of a rapid growth of available resources. It should also be specified, how the short-range aims will be

integrated with the broader national goals of eradicating the problem of unqualified teachers working in the Black and Coloured educational systems.

The scope of TOPS activities in the first year of its operation and data about rates of drop-out and failures in the examination enable realistic programme plans to be prepared and this seems to be one of the most urgent tasks to be carried out by the organisation.

Improving evaluation practice.

An additional recommendation which can be made on the basis of the evaluation results, refers to the urgent need of improving the evaluation of the programme and of rendering evaluation as a permanent component of the programme management. Reference was already made to Cronbach's (1983) contention, that designing an evaluation is a continuous process.

By no means should one regard this evaluation report as an adequate guide for programme activities in the forthcoming years. While data summaries reported in this study provided responses to vexing questions, which concerned the programme planners, they also brought a great many new problems to light which could not be answered on the basis of data available. Thus for example, one would like to know more about the TOPS' participants: what is their status in the school? Has participation in TOPS affected their status in the school? How do teachers react to failure in the matriculation examination? Can failure be predicted and how? Who are the drop-outs? How can drop-outs be prevented, and under what circumstances?

These are only examples of questions, which may be of great interest, and quite clearly not all of them can be answered, even if evaluation is a permanent and continuous component of the programme. As Cronbach (1983) indicated, a decision to look intensively at one variable implies scanting investigation of some other variable.

It is important to establish a dialogue with various 'stake-holders' of the programme to find out, what they consider to be basic questions which should be answered, and in their view, what the criteria and the

standards are and on what basis the success of the programme should be measured. The continuous evaluation should have a stable component which should recurrently examine some salient aspects of the programme. It should be structured according to a preordinate pattern, and should be published annually on a mutually agreed upon date. Lewy (1985b) described the techniques for carrying out Serial Evaluation Activities and suggested, that such studies should recurrently use an agreed conceptual framework, data collection instruments, and a routine scheme for data analysis.

Additionally, evaluation should also have a flexible component, which will address emerging problems year after year, and will examine the worth of programme-innovation plans.

Micro-Level Recommendations

The recommendations contained in this section touch upon less pervasive aspects of the programme than those which were reported in the previous section. No educational programme operates in a vacuum. Many of the programme parameters are determined by factors which are external to the programme. Political factors impose constraints and have bearings on determining what is permissible, and what is not permissible.

To a greater or lesser degree in all countries of the world educational policies tend to become matters of political interest and debate. In this regard South Africa is not an exception. Hunter (1978) discussing the factors in the South African conflict over education says:

There is no way of keeping politics out of education. An education system can never be politically neutral, nor value free but there is always a political dimension in an educational policy: if it is not explicit, then it is there implicitly.

(Hunter 1978, p.27)

Constraints are imposed on educational programmes not only by national politics but also by political considerations of the organisations, which run a particular programme. Moreover, the history of a particular programme may set limits for changes.

The present programme, too, operates under certain constraints, and while the management reveals a high level of openness, the starting point for each recommended change can be only the current structure of the programme.

The micro level recommendations presented here will touch upon the following issues: admission to the programme, the content, the delivery mechanism, and the management of the project.

Admission to TOPS courses.

Recommendations were made that the participation in the non-academic components of the programme should not be conditioned on the participation in the academic component. Consequently, separate recommendations should be made with regard to the admission to the academic component and to the non-academic components.

(1) ACADEMIC COMPONENT

- (a) The data reported in the previous chapters suggest that recommendations need to be made with regard to the selection of participants for admission to academic courses. The drop out rate from the programme, and particularly in the subjects of Mathematics and Physical Sciences, indicates that certain amendments and adjustments need to be made with regard to the admission to the programme. It is recommended that a minimum acceptable level of entry knowledge be set as a precondition for admission to the courses.

If a decision is made to introduce screening of the students, it is recommended that consideration be given to the development of some schemes for testing the students before they start on TOPS courses. Great care and tact would have to be exercised in this, because the participants themselves are teachers. Negotiations may have to take place with the teachers themselves. In the first instance the tests should not necessarily be carried out across the whole target population, but only in selected centres, which voluntarily agree to such arrangements. After examination of the matriculation pass

scores, conclusions could be drawn as to whether it is desirable to introduce screening tests. Should a decision be made to carry out screening, it should be determined which tests, and in which form they should be used. It would be the task of evaluation to ascertain the predictive validity of tests before making decisions about their utilisation with the whole target population. The tests for each of the academic subjects are likely to be of different kinds. For example, in Mathematics and Science one may test for the comprehension of certain concepts, whilst in languages one may test for proficiency in written and spoken language.

- (b) Preparatory courses may have to be offered for those teachers who do not possess the required entry level to the matriculation courses, in order to enable them to join the normal TOPS courses later, when they have gained the pre-requisite knowledge. Such courses would offer remediation in those areas of the teachers knowledge, which have been found to be below the required standard, and teachers would be assigned to these courses on the basis of individual diagnosis.
- (c) One should consider also the possibility of limiting the number of courses for which a person is permitted to register. At present, participants on TOPS courses are permitted to enrol on up to three subject courses. This is to accommodate those participants who are taking matriculation courses for the first time, and in terms of current regulations must therefore sit for three subjects at matriculation on the same occasion.

However, other students who have already passed examinations in three subjects frequently start TOPS with great enthusiasm and tend to have an over-inflated idea of the time they have available for study. They therefore enrol on too many courses and later drop out. Some enrol on as many as four courses. It is recommended therefore, that prior to registration oral interviews be conducted with potential students in order to assess their level of commitment, and thus help them to realistically appraise their own personal situation. It is further recommended that teachers, who have already passed the matriculation examinations in three subjects, should be advised to take one or two courses only. These teachers should be encouraged

to enrol for courses in the difficult subjects like Mathematics and Science.

(d) The definition of the target population should also be changed. At present teachers of standards 3-5 are allowed to register. It is recommended that TOPS courses should be open to all teachers and principals in the primary schools. The data indicated that teachers in the lower Primary standards (Sub A - Standard 2) on obtaining matriculation are invariably expected to teach the higher standards.

Moreover, there is great mobility within the primary school, i.e. teachers are expected to teach both in the lower primary school and in the higher primary school, and are not necessarily confined to one area or the other. It should be noted that those few Sub A to Standard 2 teachers who in spite of the present regulations, have been admitted to the TOPS programme are highly motivated, involved and committed. An insistence on offering TOPS only to teachers in Standard 3 - 5 creates resentment among colleagues of the same school, who have been excluded.

(2) NON-ACADEMIC COMPONENT :

With regard to the non-academic component it is recommended that an open admission policy be adopted. Nevertheless the admission should not be on an individual basis, but rather on a school basis. Only schools, from which teachers participate in the academic component, should be permitted to apply for participation in the non-academic courses. Such an arrangement will strengthen the link between TOPS and the schools, and will extend the help of TOPS to a particular school over a wide range of school activities.

Content of TOPS courses.

At present TOPS has two major components: an academic one, which focuses on preparation for the matriculation examinations, and a non-academic one, which is directed toward helping teachers in their daily work. In the previous section it was suggested that these two components should be

disassociated from each other. Accepting this recommendation has implications for the programme content, too, mainly with regard to the non-academic component. The relevance of the courses to the teachers daily needs as well as the chances of these courses having a positive effect on the daily work of the teacher should be scrutinized and demonstrated. The following operational recommendations were formulated:

(1) NON-ACADEMIC COURSES

- (a) Non-academic courses developed by TOPS, should be evaluated. Through formative and summative evaluation the relevance of these courses, the feasibility of their implementation, and their utility should be demonstrated. Course development agreements should also specify the evaluation activities which should be carried out concomitantly with the development activities.
- (b) TOPS may use courses developed by others, including commercially available ones, but such courses should be introduced only after being validated in a sample of the target population. The dissemination of such courses across the whole population should be recommended only if sufficient local evidence has been obtained about the merits of such courses. While evidence about the merit of such courses produced in other cultures may serve as an incentive to try them out in the Black and Coloured systems of South Africa, nevertheless, the dissemination should be conditioned on the availability of local evidence.
- (c) Local initiatives should be encouraged, and TOPS should approve such initiatives, if they are recommended by the local educational committees. The approval of such programmes should be conditioned on written documentation about the rationale of the course, its objectives, its content, the intended target population, modes of delivery, and arrangements made to evaluate the programme.

Annual reports should be prepared about the level of success of local initiatives, and the extension of such programmes over a one year period should be conditioned by some evidence about their success.

The central management of TOPS should encourage local programme development, and should provide financial and professional aid for carrying out such tasks.

(2) ACADEMIC COURSES

- (d) The content of academic courses is fully determined by external examination boards and the liberty given to TOPS is restricted to the selection of the subjects. Up until now TOPS gave preference to subjects taught in schools. It is recommended that TOPS should continue to operate according to these guidelines. The courses in Mathematics and Science created special problems due, to a low rate of registration and a high rate of attrition. In spite of the high cost per capita of courses in Science and Mathematics, one should retain them in the repertoire of course offerings, and at the same time an effort should be made to increase the efficiency of these courses. This may involve increased expenditure on these subjects, but a teacher upgrading programme, which does not offer such subjects is in danger of losing its reputation.

(3) ORIENTATION COURSE

The data indicated that the TOPS participants were a very heterogenous group with wide differences of age, race, home and family circumstances, ability, attainment and length of experience. Exacerbating these problems is the fact that the participants came into TOPS courses without any clear idea of what was expected of them, or what the aims and objectives of the courses were, though the data suggests, that their own aim was to achieve matriculation in the shortest time possible. Moreover, because the participants had forgotten how to study, had an over inflated idea of the level they were at and lacked pre-requisite knowledge, they frequently overcommitted themselves. It is suggested therefore that before a new centre opens a two day introductory course should be introduced.

The delivery system.

By the delivery system, the actual course work is referred to here, and mainly the mode of teaching and class organisation. Here too, separate recommendations need to be made for both the academic component courses and for the non-academic ones.

(1) THE ACADEMIC COMPONENT

- (a) Since the content of the academic component courses is determined by external examination boards and also the format of the examinations is set by the same external agency, it is necessary to select those teaching methods which are most conducive to success in the examinations. In the present practice, expository teaching (or lecturing) is the dominant mode of teaching, and no complaints have been filed against this mode of teaching. There is strong research evidence about the effectiveness of expository teaching in imparting knowledge of course content. On the grounds of the observed satisfaction of the learners, and the accumulated research evidence about the effectiveness of expository learning and of lecturing, one may recommend that these teaching modes should be retained in the courses, though they should not constitute the single teaching mode.
- (b) The mode of teaching employed in the courses should also be conducive to the personal development of the teacher, and efforts should be made to avoid the deterioration of the courses into cramming for examinations. Teachers should be led to attain mastery of the topics and skills taught up to a level, which enables them to benefit from the learning in their professional work in the class. This means that the tutors have to keep two teaching objectives in mind: passing examinations, and the transfer of the knowledge acquired to the teacher's daily work. While in theory these two objectives are complementary, in reality they may emerge as conflicting ones. In such cases the tutors have to have great stamina in order to find the appropriate balance between them.

- (c) The delivery system should be adapted to the unique characteristics of each subject. Thus, for example, laboratory work in science, and frequently corrected writing assignments in language art must be integrated in the course work. This, too, may increase the cost of the courses, but such activities should constitute an integral part of the course work.
- (d) To help those who encounter difficulties in the academic courses it is recommended that remedial supplementary materials be developed. By using such supplementary materials, teaching can be partly personalized. It is recommended that various teaching learning techniques should be tried out to help those who experience difficulties. At present, individualized learning units for Mathematics are in the process of development, and attempts have been made to use commercially available IBM videotapes for Science and Mathematics. The development of supplementary learning materials should be carried out both at regional and at central level. In this work regions may reveal initiative and exercise autonomy. If grass-root programme development is desired, then the domain of remedial teaching materials may constitute a challenge to the regions.
- (e) One type of remedial teaching learning strategy by the name "Mastery Learning" became popular both in developed and developing countries. Bloom (1976; 1981) conceptualized this strategy as consisting of the following steps: (i) Dividing the study materials into short learning units of 8-10 hours of study. (ii) Developing formative tests for each short learning unit, which examines whether the learner mastered the learning objectives of the unit. These tests will produce diagnostic results for each individual, indicating which objectives have been attained and which objectives have not been attained. (iii) Remedial or corrective exercises are developed for each objective of a particular unit, and each individual is referred to those exercises of the corrective materials, which correspond to his points of failure.

The Mastery Learning strategy is a combination of expository classroom learning and personalized instruction. While the whole

class study the same set of materials together, after finishing the study of a particular unit a short period of individualised learning takes place, until all learners are ready to move to the next unit. The Mastery Learning approach may fit the needs of the TOPS population well, and within the framework of trying out a variety of remedial approaches it is recommended that attention to this approach, be paid as well.

(2) THE NON-ACADEMIC COMPONENT

- (f) Given the fact that the content of the non-academic component can be internally determined, the TOPS management has a greater freedom also in making decisions about the parameters of the delivery system. Here TOPS faces the challenge of learning from INSET development in other countries and encouraging grass-root development. The delivery system may vary from the point of view of time scheduling, venue and the integration of what is learned in the INSET programme with what is done in the school.

The management of the project.

Within the framework of the study little attention has been paid to the administrative management and to the process of decision making within the project. Accordingly recommendations, too, will be confined to problems of the pedagogical management and the organization of the learning.

- (a) The diversification of the programme will require dealing with a great variety of subjects and with pedagogical problems of various types. It is not likely that a single person can act as an expert to provide guidelines and to supervise activities which pertain to different domains of specialization. Even under the present conditions, when the focus of the studies is the matriculation examination, the TOPS courses deal with a variety of subjects and each of them require expertise of a different type. The problems encountered in teaching English are different from those in Afrikaans or Mathematics. If one wants to ensure a high level of

teaching in all subjects one would need to delegate the guidance and supervision of teaching a particular subject into the hands of a subject expert, who has a good knowledge both of the subject and of curricular and didactic studies which are related to that particular subject.

It is not recommended that TOPS should employ supervisors for each subject which is taught in the centres, but a mechanism should be developed which could provide guidelines for, and exercise control in the teaching of particular subjects. This can be done by occasionally inviting experts to examine the state of the art of the teaching of particular academic subjects within the centres.

- (b) There is a need to establish some mechanism for carrying out the work of guidance and supervision for each particular non-academic study component. It is recommended that teams, which develop non-academic courses for TOPS, should continue to monitor the implementation of these courses, and should also take care of programme revision and modification, if changing circumstances justify such action.
- (c) The data has indicated that the tutors were occasionally unaware of what was expected of them as tutors on TOPS courses. In some regions, no meetings of the tutorial staffs were ever called. They simply came, presented their lessons and left again, and there was no opportunity for the discussion of mutual problems.

It is therefore recommended that in order to ensure smooth programme management, an initial orientation meeting of all TOPS tutors is important because many of them will be coping with a situation which is different from their usual teaching environment. They should fully understand the ethos and identity of the programme and its aims and objectives as well as what will be demanded of them in terms of commitment, involvement, workload and enthusiasm. Following this initial meeting it is recommended that there be regular staff meetings called by the Senior Tutor. TOPS should also initiate activities, which may contribute to the personal development of the Tutors.

- (d) The conceptualized model of a TOPS centre was, that it was to be based in the community within easy travelling distance of the participants who teach in the satellite primary schools. However, the data indicate that this is not universally the case. For example, in Kwa-Zulu some participants came in from rural areas at up to sixty kilometres distance. It is therefore recommended that, where centres are not easily accessible to the participants, a different method of running the courses should be introduced. The possibilities should be explored that, where the centres are rural or semi-rural, a combination of distance tuition and weekend courses could be offered. This implies the development of some distance learning materials combined with face to face tuition, such as the attendance of participants at centres on the basis of one weekend per month. TOPS was conceptualized for an urban population and data suggested that in rural areas such as Kwa-Zulu this is not as effective as it could be.

Concluding Comment: Township Unrest

The data indicated that even in an urban situation the present methods of delivery and of running the centres are in need of refining, because the programme, when originally conceptualized, did not consider the possibility of having to operate under conditions of township unrest, which prevented participants from attending. It is recommended therefore that in order to alleviate this problem, consideration be given to setting up of venues for TOPS centres outside the townships, for carrying out activities during periods of time when there are difficulties in carrying on the TOPS programme inside the township. Unfortunately the township unrest has implications for the daily work of TOPS, which exceeds the limits of technical arrangements related to the location of the studies.

The township unrest created a climate which is different from that which prevailed at the time when the programme was conceptualized. Adapting the programme to the requirements of a situation of unrest can be only a temporary mean of alleviation.

It may help the programme to survive for a while, till a solution is found for the problems created by the unrest. The Romans used to say, that during war time the Muses stay silent. This saying applies to the TOPS situation, too. The solution of the present conflict is the most crucial problem of our nation, and not until a quiet climate of mutual trust between the races is established in the country, will educational programmes be able to realize their full potential.

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D.E.S.	The British Department of Education and Science.
D.E.T.	The Department of Education and Training.
H.M.S.O.	Her Majesty's Stationery Office.
E.R.I.C.	Educational Resources Information Center
L.E.A.	Local Education Authority
Coloured	Person classified as "Coloured" in South Africa.
Black	Person classified as "Black" in South Africa.
black	Generic term used in thesis to designate a person of colour.
H.S.R.C.	Human Sciences Research Council.
A.P.E.I.D.	Asian Programme for Educational Innovation and Development.
Senior Certificate	Senior Certificate Matriculation Examination.
J.M.B.	Joint Matriculation Board.

Teacher's Unions:

ATASA	The Association of Teachers' Associations of South Africa.
TUATA	The Transvaal United African Teachers' Association.

CATU	The Cape Teachers' Union.
PENATA	The Peninsula African Teachers' Union.
C.T.P.A.	The Cape Teachers' Professional Association.
N.A.T.U.	The Natal African Teachers' Union.

APPENDICESFORMS

1. Students' application form
2. Students' evaluation form
3. Tutors evaluation workshop
4. Students' follow-up form

VARIABLES: KEYS TO FORMS

5. Key to students' application form
6. Key to students' evaluation form
7. Key to tutors evaluation form

COMPUTER CODING SHEETS

8. SELST: Students application
9. EVAST: Students evaluation
10. TUTEV: Tutors evaluation
11. FOLUP: Students follow-up
12. Regional Co-ordinators evaluation
13. Tutors application form

MODUS OPERANDI

14. Extract from TOPS Modus Operandi - Tutors
15. Extract from TOPS Modus Operandi - Senior Tutors

TEACHER OPPORTUNITY PROGRAMMES (TOPS)STUDENT APPLICATION FORM

1. NAME: 2. PHONE:
(BLOCK CAPITALS)
3. HOME ADDRESS: 4. AGE:
..... 5. SEX:
..... 6. MARITAL STATUS:
.....
7. SCHOOL ADDRESS: 8. NAME OF PRINCIPAL
.....
.....
.....
.....
9. QUALIFICATIONS: (i.e. Highest standard achieved)
- 9.1 English 9.5 Science
9.2 Afrikaans 9.6 Biology
9.3 Mathematics 9.7 Geography
9.4 History 9.8 Other
.....
.....
10. HOW LONG HAVE YOU BEEN TEACHING?
11. WHAT SUBJECTS DO YOU TEACH?
12. WHICH STANDARDS DO YOU TEACH NOW?
13. WHICH LANGUAGES DO YOU SPEAK?

<u>FLUENTLY</u>	<u>VERY WELL</u>	<u>FAIRLY WELL</u>
.....
.....

14. WHICH LANGUAGES DO YOU WRITE?

<u>FLUENTLY</u>	<u>VERY WELL</u>	<u>FAIRLY WELL</u>
.....
.....
.....

14(a) IN WHICH LANGUAGE WOULD YOU PREFER INSTRUCTION?

English/Afrikaans.....

15. WHICH OF THE FOLLOWING SUBJECTS DO YOU WISH TO STUDY TO
MATRICULATION LEVEL? (Please tick)INDICATE STANDARD YOU HAVEEnglish(1st or 2nd Lang.MathematicsBiologyAfrikaans (1st or 2nd Lang.).....Physical ScienceHistoryGeography16. HAVE YOU DISCUSSED YOUR INTENTION TO STUDY WITH YOU SCHOOL
PRINCIPAL? YES/NO:.....

If YES, what advice did he give you?.....

.....

.....

.....

If NO, give your reasons why.....

.....

.....

.....

17. WHAT DIFFICULTIES (if any) DO YOU FORESEE IN FOLLOWING THE COURSE?

(a) AT HOME:.....

.....

(b) AT SCHOOL:.....

.....

18. DESCRIBE YOUR STUDY FACILITIES AT HOME i.e. HAVE YOU:

(i) A good light?

(ii) A quiet place to work?
 etc.

.....

19. HOW MANY HOURS CAN YOU DEVOTE TO STUDY EACH WEEK EXCLUSIVE OF TUTORIALS?

.....

20. CAN YOU ATTEND TUTORIALS REGULARLY? YES/NO (delete)

IF NO, GIVE REASONS:.....

21. ARE YOU INVOLVED NOW IN ANY OTHER COURSES OF STUDY THROUGH ANY INSTITUTION? (Specify)

.....

22. HAVE YOU A FRIEND WITH WHOM YOU CAN WORK?

.....

23. ARE YOU PREPARED TO PAY EXAMINATION FEES?

.....

24. ARE YOU PREPARED TO PAY R-PER SUBJECT TOWARDS THE COST OF THE COURSE?

.....

25. STATE WHICH YEAR YOU PROPOSE TAKING THE EXAMINATIONS IN:

<u>AFRIKAANS</u> (1st or 2nd Lang.)
<u>Mathematics</u>
<u>Enlgish</u> (1st or 2nd Lang.)
<u>Biology</u>
<u>Physical Science</u>
<u>History</u>
<u>Geography</u>

26. The subject didactics (methodology) is an intrinsic and important part of the course and crucial both to your development as a professional teacher and to your success on the course. Are you prepared to attend ALL lectures in this subject?
- I will/will not be able to attend ALL lectures in subject didactics and methodology. (delete as appropriate)

27. PLEASE USE THE SPACE BELOW FOR YOUR LETTERS OF APPLI-
CATION. YOU MUST STATE CLEARLY YOUR REASONS FOR
WISHING TO STUDY:

[illegible]

TEACHER OPPORTUNITY PROGRAMMES (TOPS)STUDENT EVALUATION FORM

NAME: TOPS CENTRE:

HOME ADDRESS:

YOUR TOPS SUBJECTS IN 1984:

.....

.....

.....

.....

.....

.....

SCHOOL ADDRESS:

.....

.....

.....

1. What is the approximate distance of the TOPS Centre:

(a) from your school? km

(b) from your home? km

2. Please explain any difficulties you may have experienced with the following:

2.1 Time:

(a) School commitments

Have you been involved in extra-mural activities at school?

Yes/No?

How have these affected your attendance of TOPS classes?

.....

.....

.....

(b) Family commitments

How do these affect your study time?

.....

.....

.....

(c) Other factors:

.....

.....

.....

- d) Do you think that more than three hours of tuition should be devoted to each subject per week? (Explain).

.....

.....

2.2 Language:

Do you find the medium of instruction difficult?

.....

2.3 Subjects:

Explain any difficulties you may be having with the TOPS subjects given above.

.....

.....

.....

.....

2.4 Study Materials:

How would you rate the text books and study materials?
(Please tick and explain where necessary):

Easy to understand

Easy to study from

Relevant to what is taught in class

2.4 Transport:

Explain whether transport is a difficulty or not.

.....

.....

.....

2.5 Study levels

What is the highest standard you have passed in the following subjects?

English 1st Language	Mathematics
English 2nd Language	Biology
Afrikaans 1st Language	Physical Science
Afrikaans 2nd Language	

4. We would like to encourage more students to take Mathematics and Physical Science. How would you suggest that this be done?

.....

.....

.....

.....

5. Explain how you feel TOPS can be improved.

.....

.....

.....

.....

.....

.....

.....

APPENDIX 3

TEACHER OPPORTUNITY PROGRAMMES (TOPS)TOPS TUTORS' WORKSHOPTUTOR'S NAME:CENTRE:SUBJECT:NO. OF STUDENTS IN CLASS:

1. Please indicate TOPS related problems which you have experienced in the first quarter, for example, transport to centre
re-arrangement of school schedules, etc

.....

.....

.....

.....

2. Mention particular problems experienced by/related to your students:

- 2.1 attendance

.....

.....

- 2.2 understanding of work

.....

.....

- 2.3 other

.....

3. What would you estimate to be the average level of students in your subject? (i.e. in terms of school standard)

.....

.....

4. Evaluation

4.1 Have you set tests/an examination or do you propose to do so?

.....

4.2 If tests/examinations have been written, what do the results show?

.....

.....

.....

4.3 What was the approximate attendance at the test/examination?
(e.g. 50%, 80%)

.....

5. Study Materials

What is your opinion of the text books and study materials issued?

Excellent

Good

Weak

Poor

Please be specific, explain and suggest alternatives:

.....

.....

.....

.....

6. General Comments:

.....

.....

.....

.....

TOPS TUTORS' WORKSHOPSUBJECT GROUPS - SOME TOPICS FOR DISCUSSION:

1. The level of students.
2. The usefulness or otherwise of books issued and alternative suggestions.
3. Remediation - is it necessary?
If so, how is it being done or how can it be done?
4. General suggestions for the improvement of the programme.

APPENDIX 4

TEACHER OPPORTUNITY PROGRAMMES (TOPS)STUDENTS FOLLOW UP FORMMark who completed the form:

Completed by the Tutor:

Completed by the Student:

Region:Centre:Name:Identification Number:

If you are still in the TOPS Programme go to page 2.

If you have left TOPS indicate date or year in which you left:

Do you intend to return?

- 1 - Yes
- 2 - No
- 3 - Do not know

What was the reason for leaving? (Mark only 1)

- 1 - Finished exams successfully
- 2 - Took exams without success
- 3 - Difficulties in coping with learning
- 4 - Disinterest
- 5 - Family reasons
- 6 - Other state reasons

That follow up form also used as Key:

Mark with/...

Mark with an X in the line before the subjects in which you took matriculation as a result of studying with TOPS. Put the X before the words Standard Grade, whatever fits. Indicate the symbol (mark) which you received as ffs:
A=1; B=2; C=3; D=4; E=5; F=6; G=7; H=8

English first language

```
----- 1 Standard Grade                ----- 2 Higher Grade
indicate the symbol you received: .....
```

English second language

```
----- 1 Standard Grade                ----- 2 Higher Grade
indicate the symbol you received: .....
```

Afrikaans first language

```

----- 1 Standard Grade                ----- 2 Higher Grade
indicate the symbol you received: .....

```

Afrikaans second language

```
----- 1 Standard Grade                ----- 2 Higher Grade
indicate the symbol you received: .....
```

Physical Science

```
----- 1 Standard Grade                ----- 2 Higher Grade
      indicate the symbol you received: .....
```

Mathematics

```
----- 1 Standard Grade                ----- 2 Higher Grade
      indicate the symbol you received: .....
```

Biology

```

----- 1 Standard Grade                ----- 2 Higher Grade
      indicate the symbol you received: .....

```

Xhosa

----- 1 Standard Grade

----- 2 Higher Grade

indicate the symbol you received:

Zulu

----- 1 Standard Grade

----- 2 Higher Grade

indicate the symbol you received:

History

----- 1 Standard Grade

----- 2 Higher Grade

indicate the symbol you received:

Geography

----- 1 Standard Grade

----- 2 Higher Grade

indicate the symbol you received:

How would you describe your experience in studying with TOPS?

1. very gratifying
2. fairly good
3. disappointing
4. very disappointing

Did you learn something within the TOPS courses which improved your work in the school?

--- Yes

--- No

Indicate/...

If no explanation = blank

Explain your response, and specify the improvement if any:

- 1 I know more about the subjects
- 2 I feel more confident
- 3 Cannot apply gained knowledge as I am still teaching sub-standard grades
- 4 TOPS courses improved my teaching
- 5 I learned from watching the tutors (techniques)
- 6 I was put to teach higher classes
- 7 I dropped out because I couldn't cope
- 8 I dropped out because of pressures at home, work or school

If you are not in the TOPS Programme anymore thank you for answering the question, you need not continue to answer other questions.

These questions should be answered by students who are still in the TOPS Programme.

Are you still participating in the TOPS Project?

Mark with an X one response only.

- 1. Yes, in the same subject as I started in 1984.
- 2. Yes, I finished exams in the subjects taken in 1984 and took a new subject.
- 3. Yes, I dropped the subject I started in 1984 and took a new one now.
- 4. Yes, I continued with the subject which I took in 1984 but added a new one.

What subjects are you taking now?

If you take several subjects mark them with an X.

- English first language
- English second language
- Afrikaans first language
- Afrikaans second language
- Physical Science
- Mathematics
- Biology
- Xhosa
- Zulu
- History
- Geography

Thank you for your co-operation in answering these questions.

APPENDIX 5

KEY 1DATA COLLECTION AND CODING: STUDENT SELECTION: (EVAST)

Variable No	Column	Variable	Limit	Remark
1	1	Reg	1- 4	
2	2	Race	1- 4	
3	3- 7	Centr	1-13	
4	9-10	Age	18-65	
5	11	Sex	1- 2	
6	12	Mar	1- 4	
7	13-14	Sch	1-99	within Reg. only
8	15	S1	1- 9	
9	16	S2	1- 9	
10	17	S3	1- 9	
11	18	S4	1- 9	
12	19	S5	1- 9	
13	23-24	Sen	1-50	
14	25	St1	1	
15	26	St2	1	
16	27	St3	1	
17	28	St4	1	
18	29	St5	1	
19	30	St6	1	
20	31	Stt	1- 8	
21	32	S11	1- 3	
22	33	S12	1- 3	
23	34	S13	1- 3	
24	35	S14	1- 3	
25	36	S15	1- 3	
26	37	S16	1- 3	
27	38	W11	1- 3	

Variable No	Coloumn	Variable	Limit	Remark
28	39	W12	1- 3	
29	40	W13	1- 3	
30	41	W14	1- 3	
31	42	W15	1- 3	
32	43	W16	1- 3	
33	44	Mat	1- 9	
34	45	Eng	1- 9	
35	46	Bio	1- 9	
36	47	Phy	1- 9	
37	48	Afr	1- 9	
38	49	dwp	1- 2	
39	50	qu	1	
40	51	6t	1	
41	52	gop	1	
42	53	had	1	
43	54	ligh	1- 2	
44	55	quie	1- 2	
45	56)-	sd1	1- 4)-	both columns two one digit
46	57)-	sd2)-	
47	58-59	hs	None	
48	61-62	dstc	None	
49	63	rat	1- 2	
50	64	rea	1- 4	
51	65			
52	66			
53	67	frie	1- 2	
54	68	payx	1- 2	
55	69	paye	1- 2	
56	70	ys1	1- 2	
57	71	ys2	1- 2	
58	72	ys3	1- 2	
59	73	ys4	1- 2	
60	74	ys5	1- 2	

Variable No	Column	Variable	Limit	Remark
61	75	did	1- 2	
	1	Reg	1- 4	
	2	Race	1- 2	
	3- 7	Centr	1-13	
	9-10	Age	18-65	
	11	Sex	1- 2	
	12	Mar	1- 4	
	13-14	Sch	1-99	within Reg only (col 1)
62	17	evs1	1	
63	18	evs2	1	
64	19	evs3	1	
65	20	evs4	1	
66	21	evs5	1	
67	22	evs6	1	
68	23	evs7	1	
69	24	evs8	1	
70	25-26	dist. sch	None	
71	27-28	dist. home	None	
72	29	extrm	1- 2	
73	30	attend	1- 7	
74	31	fam	1- 8	
75	32	other	1- 2	
76	33-34	time	1- 2	
77	35	reas.t	1- 7	
78	36	langd	1- 2	
79	37	subj'd	1- 5	
80	38	easy	1- 2	
81	39	easst	1- 2	
82	40	rel	1- 2	
83	41	tut. guid	1- 2	
84	42	trd	1- 2	
85	43	rtd	1- 3	
86	44	stl1	1- 9	
87	45	stl2	1- 9	

Variable	Column	Variable	Limited	Remark
88	46	stl3	1- 9	
89	47	stl4	1- 9	
90	48	stl5	1- 9	
91	49	stl6	1- 9	
92	50	stl7	1- 9	
93	51	stl8	1- 9	
94	52	stl9	1- 9	
95	53	stl10	1- 9	
96	56	Lias	1	
97	57	Med	1	
98	58	Ext	1	
99	59	Vis	1	
100	60	Encou	1	
101	61	No	1	
102	62	lmt	1	
103	63	pace	1	
104	64	txt	1	
105	65	offer	1	
106	66	open	1	
107	67	fullt	1	
108	68	Mcen	1	
109	69	Noi	1	
110	70	splt	1	
111	71	fai	1	
112	72	mvis	1	
113	73	trs	1	
114	74	sym	1	

KEY 2APPENDIX 6DATA COLLECTING AND CODING STUDENT's EVALUATION FORM (EVAST)LIST OF VARIABLES:-

<u>COLUMN</u>	<u>SUBJECT</u>	<u>CODING BREAKDOWN</u>
1-14	Take this from original	Data collecting + coding sheets
15-16	Left blank for space	and future use
17-24	T.O.P.S. subjects chosen	Insert 1 for each
25,26	Distance from school	Insert numbers of kilometres
27,28	Distance from home	Insert number of kilometres
29	School commitments/ Extramural activities	1=Yes 2=No
30	Effect of above on class attendance	1= Frequent absenteeism 2= Occassional absenteeism 3= Principals make allowance 4= School take priority 5= Meetings 6= No effect on TOPS classes 7= Late for classes
31	Family commitments	1= No effect on study time 2= Sick children 3= No-one look after children 4= Hospital visits 5= Domestic duties 6= Alcoholism 7= Lack of privacy 8= No electricity
32	Other factors	1= Affect study 2= None
33	Blank for space and future use	
34	Time for tuition to be increased	1= Yes 2= NO

Cont./...pg.2

COLUMN	SUBJECT	CODING BREAKDOWN
35	Reasons for above	1= Large Curriculum 2= More time needed for teaching 3= Lessons too long 4= Lose concentration 5= Dark in townships 6= Domestic duties 7= Travel problems
36	Language difficulties	1= Yes 2=No
37	Subject difficulties	1= No difficulty 2= Tutors too fast 3= Lack of patience (Tutor) 4= Lack of background 5= Assumption of knowledge
38	Study materials easy to understood	1= Yes 2= No
39	Above easy to study from	1=Yes 2= No
40	Above relevant to what is taught in class	1= Yes 2= No
41	Above relevant only after tutor guidance	1=Yes
42	Transport difficulty	1=Yes 2=No
43	Reasons for above	1= Lack of public transport 2= Late arrival 3= Distance from centre
44-53	Qualifications	Insert standard (Grade)
54-55	Blank	
56-61	How to encourage maths and Physical Science	

cont./...pg.3.

COLUMN	SUBJECT	CODING BREAKDOWN
56	Liaison between industry and education	
57	Media information on subject importance	
58	Expert Tutors	Insert 1 in appropriate colimn(s)
59	Visual Aids	
60	Individual Encouragement	
61	No ideas	
62-80	How TOPS can be improved	
62	Expert Tutors	
63	Tutors adjust pace to suit students	
64	More text bookds supplies	
65	More subjects offered	Insert 1 in appropriate column(s)
66	Open to all members of community	
67	Full-time institutes	
68	More centres	
69	No ideas	
70-74	Any other comments:	
70	Tutors to spend less time re-capping for absentees	
71	Fine as it is	Insert 1 in appropriate column (s)
72	More visual aids	
73	Teachers should be treated as students, with little knowledge	
74	Sympathetic approach	
74	Blank	
76-80	Code 2 instrument: Evaluation Student	

KEY 3LIST OF VARIABLES I : TUTORS EVALUATION FORM: (TUTEV)

COLUMN	SUBJECT	CODING BREAKDOWN
1	Region	1 = Transvaal 2 = Western Cape 3 = Eastern Cape 3 = Kwa Zulu
2	Race	1 = Coloured 2 = Black 3 = White
3+4	Centre	01 = Katlehong 02 = Alexandra 03 = Eldorado Park 04 = Atlantis 05 = Mitchells Plain 06 = Elsies River 07 = Langa 08 = New Brighton 09 = Uitenhage 10 = George 11 = Port Elizabeth 12 = Esikhawini 13 = Mpumalanga
5+6+7	Individual tutor	Each tutor must have his own 3 digit number e.g. 007. Each centre has a separate code. Tutors teach at several centres and are coded to regions and centres.

COLUMN	SUBJECT	CODING BREAKDOWN
8	Subject	Maths = 1 English = 2 Afrikaans = 3 Phy Sci. = 4 Biology = 5
9+10	No. of students	State actual number
11	Lack of apparatus, aids, materials, etc	Yes = 1 No = 2
12	Poor Attendance	Yes = 1 No = 2
13	Late Arrival	Yes = 1 No = 2
14	No Laboratory facilities	Yes = 1 No = 2
15	Dirty classrooms	Yes = 1 No = 2
16	Poor attainment level of students	Yes = 1 No = 2
17	Past exam papers	Yes = 1 No = 2
18	Transport difficulties	Yes = 1 No = 2
19	3 hour sessions	Yes = 1 No = 2

COLUMN	SUBJECT	CODING BREAKDOWN
20	Late arriveal of materials	Yes = 1 No = 2
21	Poor student attitude to tutors	Yes = 1 No = 2
22	Drop out rate	Yes = 1 No = 2
23	Duplication of materials	Yes = 1 No = 2
24	Early start to sessions	Yes = 1 No = 2
25	No blinds in classroom	Yes = 1 No = 2
26	Progress too slow	Yes = 1 No = 2
27	Syllabus too long	Yes = 1 No = 2
28	Poor timetable	Yes = 1 No = 2
29	Venue too noisy	Yes = 1 No = 2
30	Students not bringing books	Yes = 1 No = 2

COLUMN	SUBJECT	CODING BREAKDOWN
31	Students not having books	Yes = 1 No = 2
32	Regular good satisfactory attendance	Yes = 1 No = 2
33	Irregular Unsatisfactory poor attendance	Yes = 1 No = 2
34	Attendance affected by school or family commitments	Yes = 1 No = 2
35	Problems because of late sessions	Yes = 1 No = 2
36	Problems because of transport	Yes = 1 No = 2
37	Erratic attendance	Yes = 1 No = 2
38	Absence because of exams	Yes = 1 No = 2
39	Lack of background knowledge	Yes = 1 No = 2
40	Poor understanding/ Comprehension	Yes = 1 No = 2
41	Difficulty of Expression	Yes = 1 No = 2

COLUMN	SUBJECT	CODING BREAKDOWN
42	More tuition time required	Yes = 1 No = 2
43	Great variety	Yes = 1 No = 2
44	Slow progress	Yes = 1 No = 2
45	Vocabulary difficulty language	Yes = 1 No = 2
46	Literature presents difficulties	Yes = 1 No = 2
47	Grasp	Yes = 1 No = 2
48	Lack of basic concepts/ skills	Yes = 1 No = 2
49	Standard grade only	Yes = 1 No = 2
50	More testing necessary	Yes = 1 No = 2
51	Estimated level of students English	Put in standard for 10 put 1
52	Afrikaans	Put in standard for 10 put 1
53	Maths	Put in standard for 10 put 1

COLUMN	SUBJECT	CODING BREAKDOWN
54	Physical Science	Put in standard for 10 put 1
55	Biology	Put in standard for 10 put 1
56	Have examinations been set	Yes = 1 No = 2
57	Weak basic comprehension	Yes = 1 No = 2
58	Weak results	Yes = 1 No = 2
59	Good, promising, satisfactory results	Yes = 1 No = 2
60	Above average, excellent, very good results	Yes = 1 No 0 2
61	Mixed results	Yes = 1 No = 2
62	Encouraging results	Yes = 1 No = 2
63	Poor interpretation of questions	Yes = 1 No = 2
64	Remedial attention necessary	Yes = 1 No = 2

COLUMN	SUBJECT	CODING BREAKDOWN
65	Average results	Yes = 1 No = 2
66	Basics not mastered	Yes = 1 No = 2
67	Attendance affected results	Yes = 1 No = 2
68	No preparation	Yes = 1 No = 2
69	Wide range of ability	Yes = 1 No = 2
70	Lack techniques	Yes = 1 No = 2
71+72	Average Attendance	
73+74+75	English Study Materials	1 = Below standard 2 = Good/Adequate 3 = Excellent 4 = Poor 5 = Inadequate 6 = Confusing 7 = Uninteresting 8 = Repetitive 9 = Complex

76+77+78+79+80 = CODE = TUTEV

LIST OF VARIABLES 2: TUTEV (continued)

COLUMN	SUBJECT	CODING BREAKDOWN
1-10	Same entries as sheet 1	
11+12	Suggestions English	1 = Video recording tapes 2 = Practical Aids 3 = Better illustrated books 4 = Std 10 text books 5 = Supply own texts 6 = Supply exam papers
13	Afrikaans Study materials	1 = Excellent 2 = Good/Adequate 3 = Weak 4 = Poor 5 = Too Advanced Above students level 6 = Unsuitable
14+15	Suggestions Afrikaans	1 = Dictionaries required 2 = Modern texts to fit students culture, experience. 3 = Require grammar exercises 4 = Past exam papers 5 = New textbook with spelling and rules
16	Maths study materials	1 = Excellent 2 = Good/Adequate 3 = Weak/Inadequate 4 = Poor 5 = Below standard required 6 = Unsuitable 7 = Out of date

COLUMN	SUBJECT	CODING BREAKDOWN
17	Suggestions Mathematics	1 = Supplementary exercises 2 = Sached materials 3 = Wits Winter School Materials 4 = Use own materials
18	Physical Science Materials	1 = Excellent 2 = Good 3 = Weak 4 = Poor 5 = Language too involved 6 = Does not cover syllabus adequately 7 = Outdated
19+20	Suggestions: Physical Science	1 = Matric revision 2 = Video recordings 3 = Exam papers 4 = Purchase answer series 5 = Study aids
21+22	Biology Materials	1 = Excellent 2 = Good 3 = Weak/fair 4 = Poor 5 = Not enough information 6 = Average materials 7 = Text book too complex
23+34	Suggestions: Biology	1 = A different Biology text book 2 = Same text book as full time students 3 = Materials above students level 4 = Exam papers 5 = Damelin materials recommended

COLUMN	SUBJECT	CODING BREAKDOWN
25		
26+27+28	General Remarks : Maths	1 = Workload too heavy 2 = Intermediate courses necessary 3 = Bridging courses necessary 4 = Presence of English/Afrikaans speaking students poses problems 5 = Use of O.H.P. and video tape 6 = Longer courses necessary 7 = Students should be divided into 3 separate groups 8 = Background knowledge poor
29+30+31	General Remarks : English	1 = Require more time 2 = Better co-operation with Principals 3 = More frequent tutor meetings 4 = Require exam papers 5 = Materials issued too soon 6 = Bridging, remedial and refresher courses needed 7 = Require better grammar texts
32+33+34	General Remarks : Afrikaans	1 = Require more time 2 = Materials should be promptly available 3 = Less difficult subjects intro- duced 4 = Week-end orientation course 5 = 3 different levels 6 = Vacations should be used 7 = Principals attitude must improve 8 = Remediation necessary 9 = Group discussion necessary

COLUMN	SUBJECT	CODING BREAKDOWN
35+36+37	Physical Science	1 = Students frightened of subject 2 = Guidance should be given and syllabus and exam requirements 3 = Very basic approach must be adopted 4 = More tuition time required 5 = Remediation required 6 = Maths should be compulsory 7 = Science to be taken only on standard grade 8 = Refresher courses required
38+39+40	General Remarks: Biology	1 = More tuition time required 2 = Different levels should be introduced 3 = Poor basic background knowledge and concepts 4 = Discussion sessions required 5 = Remediation time required

TUTORS' EVALUATION: TUTEV 1

[illegible]

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TUTORS' EVALUATION: TUTEV 2

APPENDIX 12TEACHER OPPORTUNITY PROGRAMMESREGIONAL CO-ORDINATOR'S EVALUATION

NAME OF REGIONAL CO-ORDINATOR:.....CENTRES:

REGION:

NO. OF STUDENTS IN REGION:

Kindly complete the following questions. Avoid using one word answers like "no". Be explicit.

1. TARGET POPULATION

The target population is Standard 8 plus 2 years professional training who teach in standards 3,4, and 5.

1.1 Should teachers outside this target be considered?.....

.....

1.2 Which?.....

.....

1.3 Why?.....

.....

1.4 Should unqualified teachers be considered?.....

.....

1.5 Why?.....

.....

1.6 Should teachers with Standard 6 and 7 qualifications be considered?

.....

1.7 What is the motivation for teachers to study through TOPS?

a) Salary b) Status c) Both d) Other

1.8 Please enumerate any problems you have experienced in this regard.

.....

1.9 Please feel free to make suggestions in this regard.....

.....

2. LEVEL OF STUDENTS:/UNDERSTANDING OF WORK

2.1 Are students up to Standard 8 level when they start?

.....

2.2 In some subjects?

.....

2.3 In all subjects?

.....

2.4 Which subjects present the greatest difficulty?

- 2.5 Which subjects present the least difficulty?
.....
.....
.....
- 2.6 Should additional subjects be added?
.....
.....
.....
- 2.7 Which subjects?
.....
.....
- 2.8 Why?
.....
.....
- 2.9 Should subjects be eliminated from the Programme?
- 2.10 Which?
.....
.....
- 2.11 Why?
.....
.....
.....
- 2.12 Are all students in need of remediation?/Bridging Programmes
.....
.....

2.13 How long should these courses last , 3 months, 6 months, 1 year?

.....

2.14 Should TOPS academic upgrading be at two levels,
 should there be a two year committment to students?

.....

2.15 Do students think that they are better than they actually are?

.....

2.16 Does age present a barrier to some students learning?

.....

2.17 Have you any suggestions as to how any of these problems could be

.....

2.18 Would students be willing to commit themselves to a two year
 course?

.....

3. STUDENTS PROBLEMS

Attendance at some of the centres has become very sporadic.

Is this due to: ° domestic problems at home?

° workload at school and TOPS?

- °Out of school activities?
- °Attitude of Principals?
- °General apathy - lethargy?
- °No study facilities at home?
- °Lack of guidance within the Programme?
- °Time too short to cover syllabus?
- °Travel problems or distance from Centre?
- °Other?

3.2 Can you offer any suggestions as to how this could be remedied?

.....

3.3 Should sanctions be applied to students, who do not attend?

.....

4. MATERIALS

It was never suggested that the materials offered were intended to be a perfect package.

Therefore, .

4.1 Which materials are poor?

.....

4.2 Which are fair?

.....

4.3 Which could be augmented? By what?

- 4.4 Which are excellent?
-
-
-

PLEASE STATE REASONS FOR ABOVE ANSWERS

- 4.5 Are the materials too difficult in concepts, and idiom? ..
-
-
- 4.6 Specify which?
-
-
- 4.7 Should we be producing our own materials?
-
-
-
- 4.8 Which subjects? (ie what materials).....
-
-
-
- 4.9 Who should produce them?
-
-
-
- 4.10 In which languages should the materials be produced?
-
-
-

4.11 The students pay R5 per subject. Should they pay:

More?

Less?

Nothing?

4.12 Would you agree/disagree that materials used for Blacks should be different to the materials used for the Coloureds?

.....

.....

.....

4.13 Should TOPS purchase ALL the materials or only some?

.....

Reasons

.....

.....

4.14 Were you happy/not happy with the suppliers?

4.15 Please give reasons and problems encountered?

.....

.....

4.16 Should local Regions have a greater say in the choice

or should this be centrally located?

.....

.....

4.17 How would you prevent students collecting materials and then disappearing?

.....

.....

4.18 What sanctions could be introduced in this regard?

.....

.....

.....

4.19 Should the books be given out all at once or as required?

.....

.....

4.20 Please write explicitly how the whole question of materials
could be improved.....

.....

.....

.....

5. METHOD OF TUITION

3 hours per week per subject X 40 weeks per year.

5.1 Is 40 weeks per year sufficient/insufficient time to cover syllabus?
that is, 2 years?

.....

5.2 Is 2 x 1½ hours or 1 3hr session to be preferred?

.....

5.3 Should the teaching operate at 2 levels so that remedial tuition
can be given?

.....

5.4 Should this take place in the normal class

.....

.....

- 5.5 Should the commitment be for 2 years or 3 with the provision that the better ones could sit exams one year if ready?.....

- 5.6 How many subjects can students cope with per year, at 3 hours per week per subject?

- 5.7 Should their choice of subjects be influenced in any way?.....

- 5.8 Should the level at which they take the subject be influenced in any way? i.e. Test?

- 5.9 How could Maths and Science subjects be made more attractive?....

- 5.10 Should the students be given any assistance, advice in study skills and organisation of time?

5.11 Should there be a person in each region to deal with the students problems in addition to the Co-Ordinator and Senior Tutor?

.....

.....

5.12 What duties should they perform?

.....

.....

.....

5.13 How do you see the function of Senior Tutor?

.....

.....

.....

5.14 Are there sufficient resources available?

.....

.....

.....

5.15 What do you feel is a viable number for a class? 5, 10,

.....

.....

5.16 What other suggestions could you make for the improvement of the tutoring and tutorial force?

.....

.....

.....

.....

.....

6. METHODOLOGY

One of the aims of TOPS is to improve the professional expertise of the teachers in the subjects they teach. (of the 5 presently offered). These are presently being prepared by the Universities for introduction to the Programme in 1985 in the form of week-end seminars.

- 6.1 Maths and Science are being prepared in the form of kits and literature. Is this acceptable? (Kits like that presented by Anne Griffiths).....

- 6.2 What do you feel about the method of implementation? i.e. Seminars, for each subject?.....

- 6.3 Should the Methodology be introduced at the beginning and be an ongoing process in addition to lectures on the academic component? Why? Why not?.....

- 6.4 Who should conduct the seminars?.....

- 6.5 Should there be a follow-up exercise?.....

- 6.6 Should students be allowed to attend all seminars, that is, 5 at present in each area?

6.7 Should the students be taken away for a week-end

.....

6.8 Should the departments of Education be involved?

6.9 How? Why? Why Not?

.....

6.10 Should the Methodology Component be confined to those schools
 involved in the academic component?

.....

6.11 Should principals and Heads of Department be involved?

.....

6.12 Should there be also a course on "general Methodology" embracing
 discipline, preparation and planning, classroom organisation,
 relationships with parents, children, other staff, etc?

.....

6.13 Have you any other suggestions to make

.....

7. ADMINISTRATION OF TOPS

- 7.1 Have you any suggestions as to how the administration
in TOPS could be improved?
.....
.....
.....
.....
- 7.2 Is there adequate and efficient communication ?
.....
.....
.....
- 7.3 Is the National Co-ordinator readily available?
.....
.....
- 7.4 In what ways could he improve his performance?
.....
.....
- 7.5 Is he supportive?
.....
- 7.6 Is he reasonable and open to suggestion?
.....
.....
- 7.7 Is he considerate?
.....
- 7.8 Does he have too much / too little autonomy?

7.9 In what areas should he have more or less autonomy?

.....
.....

7.10 Has the Regional Co-ordinator sufficient / too much autonomy? .

.....
.....

7.11 Is the work load too great?

.....
.....

7.12 How could this be improved?

.....

7.13 How often do you visit centres?

7.14 What do you expect of the Senior Tutor?

.....
.....
.....

7.15 What do you expect of Tutors?

.....
.....

7.16 Is your salary adequate to the job involved?

.....

7.17 What salary do you think you should earn?

7.18 Is your travelling allowance sufficient?

7.19 What do you think this should be?

7.20 Have you adequate secretarial assistance?

.....

.....

7.21 In what way could your performance be improved?

.....

.....

.....

7.22 Do you meet with Tutors/Senior Tutors on a regular basis.

.....

.....

7.23 Are you constantly evaluating the Programme and your performance?

.....

.....

7.24 What scope do you see for expansion of TOPS?

.....

.....

.....

.....

7.25 What steps have you taken to erradicate the drop out rate?

.....

.....

7.26 What steps have you taken to get back materials from drop out

.....

.....

.....

7.27 SENIOR TUTORS Make suggestions on the following points:

Salary

 Travelling allowance

 Work load

 Performance

7.28 TUTORS Make suggestions on the following points:

Salary

 Travel allowance

 Work load

 Performance

 Engagement and dismissal

8. MANAGEMENT/LEADERSHIP COURSES /SEMINARS

- 8.1 Should these be confined to Principals?

 8.2 What benefits accrue from these?

 8.3 What should these courses contain?

8.4 Should Educational Departments be involved?

.....

.....

8.5 Who should have responsibility for organising these courses?

.....

8.6 Which schools should be involved?(that is, TOPS schools,Any) .

.....

8.7 How often should they run?

.....

9. GENERAL

Have you any comment/suggestion to make on any of the ff.

Marketing/Publicity of TOPS

.....

.....

Hierarchical structure

.....

.....

Selection and monitoring of students

.....

.....

Evaluation of the Programme

.....

.....

Committees

.....

Finance

TEACHER OPPORTUNITY PROGRAMMES(TOPS)TUTOR APPLICATION FORMFULL NAME: (Surname first)-----ADDRESS:-----

EMPLOYMENT:-----

AGE:-----5.SEX:-----6.MARITAL STATUS:-----

PHONE: (HOME)----- (WORK)-----QUALIFICATIONS (Please state College/University)PROFESSIONALACADEMICOTHER

SUBJECTS YOU CAN TEACH: i.e. MATHS, ENGLISH, AFRIKAANS,
GEOGRAPHY, PHYSICAL SCIENCE,
BIOLOGY, HISTORY.

STANDARD-----YEARS OF EXPERIENCE-----

STANDARD-----YEARS OF EXPERIENCE-----

STANDARD-----YEARS OF EXPERIENCE-----

STANDARD-----YEARS OF EXPERIENCE-----

School/InstitutionDatesSubjects Taught

HAVE YOU EXPERIENCE IN TEACHING ADULTS?-----

HAVE YOU BEEN INVOLVED IN OTHER PROJECTS OF A SIMILAR NATURE?

ON WHICH AFTERNOONS/EVENINGS COULD YOU TEACH?-----

WOULD YOU BE PREPARED TO TEACH ON SATURDAY MORNING?

HOW FAR DO YOU LIVE FROM THE CENTRE?-----kms.....

HOW MANY 1½ HOUR SESSIONS COULD YOU TEACH EACH WEEK?---

WOULD YOU BE PREPARED TO :

Attend a monthly orientation course?-----

Prepare your students for Matriculation?-----

Do all necessary preparation of Syllabus?-----

Keep a record of work?-----

Keep a register of attendance?-----

Keep a running assessment of students performance?-----

Set Assignments or Homework?-----

Set end of term examinations and take responsibility for marking?-----

Support your Senior Tutor in all professional decisions?

Give one month's notice of intention to resign?-----

Be prepared to sign a contract of employment with Teacher
Opportunity Programmes?-----

A Programme of this nature relies for success on having tutors of a very high calibre. They must be enthusiastic, committed and involved. In a few sentences give your reasons (apart from the obvious ones) why you are applying:-

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slightly textured appearance and some minor discoloration or shadows, suggesting it's a scan of a physical document. There is no handwriting or other markings on the page.

SIGNATURE:----- DATE:-----

APPENDIX 14EXTRACT FROM TOPS MODUS OPERANDI (1983)TUTORS: IN TOPS PROGRAMME

22. Tutors must be people who are committed, involved and enthusiastic. They must be approachable and sympathetic to the needs of Black and Coloured teachers. The Programme requires people of high moral character with a sense of commitment and vocation for this important work.

It is desirable that the tutor force has a good mix of Black, Coloured and White teachers who live within a reasonable distance of the Centre. They should be people of the highest possible calibre academically and have good experience of teaching their subject to matriculation level. Experience of teaching adults would be a distinct advantage.

Tutors may be engaged by the Senior Tutor and Chairman of the Regional Committee because they are already known to be good teachers or they may be appointed after advertising in the press and subsequent interview. Students are sometimes consulted on this because they are often aware of good tutors with whom they can identify and can learn with.

It is essential that the tutor completes an application form which must be kept on file in the Regional office. Tutorials will be provided for a minimum of 30 weeks in the year. Extra lessons will be given if necessary. (Students would find it very difficult to attend more often than this because of school examinations and extraneous school activities).

DUTIES:

Tutors will therefore be expected to:-

- 22.1 Assist the Senior Tutor at all times and to comply with his/her professional requests, i.e. Register, Reports, etc.
- 22.2 Prepare work thoroughly i.e. long term and short term and keep up to date with syllabus requirements.
- 22.3 Keep a record of work covered so that if they leave the next tutor will know where to start and what has been covered. (See Appendix)

22.4 Assist students with timetables and other administrative tasks.

(See Appendix)

22.5 Build up a good relationship with students.

22.6 Keep records of students' performance on the continuous assessment sheets.

Prepared exam entry lists and follow up on examination results.

By their appearance, behaviour and professionalism be a constant example of what a good teacher is.

Tutors are expected to attend a monthly meeting to discuss progress and problems with the Senior Tutor.

Tutors are encouraged to remember that self-discipline and example is the first requisite of successful team work. They should try and have a good grasp of all the problems of a particular area and be sympathetic to the very real problems of the students.

23. TUITION AND REMUNERATION:

Each week a period of 3 hours will be given to each subject (i.e. 2x 1½ hours).

Payment to tutors is at the rate of R12,50 per hour.

Tutors are paid for 5 hours for every 3 hours taught (i.e. 3 hours tutorials plus 2 hours for preparation and marking).

24. TRAVELLING ALLOWANCE:

Tutors are re-imbursed at the rate of 20c per kilometre.

The success of the programme depends largely on the quality of the tutors, and it is important therefore that the programme offers the best possible conditions that the budget can carry.

There are +8 tutors per Centre depending on local requirements.

25. SELECTION OF STUDENTS:

The target population for The Teacher Opportunity Programmes is those teachers in the upper levels of Primary Schools who are teaching Standards 3,4, and 5 who have STANDARD EIGHT PLUS

professional qualifications. This has been identified as the greatest area of need. As the programme develops, it may be possible to embrace others. Students complete application forms so as to :-

- get all details, i.e. name, address, etc.
- assess potential
- assess commitment

Without sitting any formal examination it will be possible to assess from the responses, particularly Question 27, what the level of written communication is. A screening process is carried out to assess the level of the student and an orientation programme of 2 days, on study techniques and organisation of time.

26. ORAL INTERVIEW:

The course in any Centre starts with an intensive 2-day course during which the students are informed on the whole concept of TOPS and what is expected of them. It is also a time for guest speakers, distribution of materials, introduction of tutors and general administration.

Each student is interviewed by the Senior Tutor or tutors in order to assess whether the student has an independent attitude towards his studies or whether he expects the tutor to be all powerful, all knowing, almighty- and therefore able to solve all his learning problems.

i.e.

Does the student have realistic expectations of the course?

Is he able to devote sufficient time each week to study?

It is clearly spelt out to the students what is required of them in terms of work and commitment.

27. THE STUDENT APPLICATION FORM:

When selection has been made, the completed forms of the accepted students are kept in the Regional office for record purposes. A file is kept on each student, monitoring progress in the chosen subjects.

28. FEES:

Students are expected to pay their own examination fees and to pay the minimal sum of R5-00 per subject. Subject fees are collected before the course starts. Fees are subsequently under review.

29. TUTORIALS: (Academic Component)

Tutorials are provided for 30 weeks in the year.

Because of school examinations teachers find it very difficult to attend more than this.

Each week in each subject, a period of three hours (2x 1½ hours) will be given to each subject. Student teachers will then have a total commitment of nine hours e-g- 3 afternoons x 3 hours- 2 subjects per afternoon (or 2 afternoons and a Saturday morning).

N.B.: It may be that all students do not take 3 subjects.

They may not take more than 3 subjects from Maths, Afrikaans, English, Physical Science, Biology, History, Geography, Xhosa and Zulu.

EXTRACT FROM TOPS MODUS OPERANDI (1983)SENIOR TUTORS: IN TOPS PROGRAMME

This crucial position was seriously thought about and discussed at length in Committee before anyone was appointed.

It is clearly understood by all that a Senior Tutor is much more than just an administrator, though this is an intrinsic requirement of the position.

It is highly desirable that the person appointed has the following attributes:

- (a) a good academic background.
- (b) a good administrator who can carry through the policy laid down by the National Committee.
- (c) a background in education such as Principal, Deputy Principal or Head of Department experience. An energetic ex Principal would be ideal.

Further, the person appointed should be committed and involved and should not attempt to carry out the function by remote control, splendid isolation, or by being a 'tin god'.

Attendance at the centres is required most evenings in order to:

- advise tutors
- advise students
- hold staff meetings
- deal with any problems as they arise
- the day-to-day administration of the Centres such as checking registers, files, preparation, tutor absence, timetables, etc.

The Senior Tutor therefore is in a crucially important position since he/she is the hub around which the Centres operate. It requires a particular kind of person who is:

- Committed and involved,
- Enthusiastic without being aggressive,
- Able to appoint tutors and give assistance,
- Mobile, that is, have a car.

- Good self-discipline,
- Someone who students and tutors will respect and listen to,
- Someone who has no home difficulties which would impinge on evening duties at the Centres,
- Someone who has no difficulty or fear of travelling into the township during late afternoons or evening,
- Can prepare a monthly report for the Regional Committee and the National Director with whom he/she should be in constant contact and be the first point of reference.

Finally, someone who has a good grasp of all the problems of a particular area and is sympathetic to the problems of the students and tutors. In other words he/she can identify with them.

The great advantage of one Senior Tutor per centre is that they are in constant contact with the Centre, students and tutors and the whole organisation then operates on a more friendly and personal level. This is preferable and necessary in the smooth and efficient running of any educational establishment and certainly of this programme.

The Senior Tutor should answer directly to the Regional Chairman and National Director who in turn is answerable to the National Committee.

Salary is paid monthly from central funds. The remuneration is R350,00 per month, for 12 months of the year.

There is a travel allowance of 20 cents per kilometre and reasonable out-of-pocket expenses.

The Senior Tutors are appointed (after advertising) well before the courses begin in order to attend to student enrolment, assist with ordering materials for centres, drawing up timetables, distributing students materials and appointing tutors. The National Director will be only too willing to help and advise in this and to supply all administrative forms, etc.

An office (with telephone) is made available for the Senior Tutor so that he can interview, store materials and keep records.

A secretary is also appointed in each region to deal specifically with TOPS business.

The duties of the Senior Tutor are as follows:

- 21.1 Attend to problems as they may arise (student attendance, venue, etc.)
- 21.2 Maintain liaison with Students, Principals, and Tutors.
- 21.3 Be responsible for the opening and closing of the centres.
- 21.4 Ensure that tutors keep accurate registers.
- 21.5 Keep up to date records of work covered so that if a Tutor terminate his service the next tutor can carry on successfully.
- 21.6 Keep records of students' performance and set termly tests in order to assess this.
- 21.7 Keep Head Office fully informed on all students' progress.
- 21.8 Prepare examination entry lists.
- 21.9 Attend a monthly Regional meeting to discuss progress and problems.
- 21.10 Keep up to date with syllabus requirements and ensure tutors prepare work thoroughly both in the long and short term.
- 21.11 Provide students with counselling and be responsible for the selection of Students.
- 21.12 Keep a record of Tutor attendance and collect claim forms.
- 21.13 Ensure that the correct books and materials are ordered and delivered timeously.
- 21.14 Be responsible for the issue of books to students.
- 21.15 Be totally involved in the setting up and efficient running of the centre.
- 21.16 To ensure that students pay R5.00 per subject on registration.

- 21.17 To be responsible for the centre time table.
- 21.18 To present a written monthly report on the progress of the centre to Head Office and Region.
- 21.19 To be responsible with the Regional Chairman for the forward planning of the centre.

